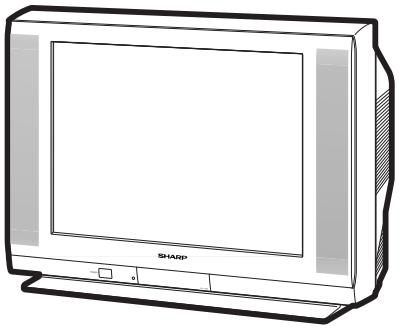
SHARP

SERVICE MANUAL

S34Q129FL94//



COLOR TELEVISION

Chassis No. GB-3U

MODEL 29FL94

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

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ELECTRICAL SPECIFICATIONS

POWER INPUT ..... 110~220V AC, 50/60 Hz
POWER RATING 145W
PICTURE SIZE ..... 2,193.5 cm^2 (339sq inch)
CONVERGENCE ..... Magnetic
SWEEP DEFLECTION ..... Magnetic
FOCUS ..... Hi-Bi-Potential Electrostatic
INTERMEDIATE FREQUENCIES
  Picture IF Carrier Frequency ..... 45.75 MHz
  Sound IF Carrier Frequency ..... 41.25 MHz
  Color Sub-Carrier Frequency ..... 42.17 MHz (Nominal)
AUDIO POWER
  OUTPUT RATING ..... 7.5W + 7.5W (at 10% distortion and Dual CH Operate)
SPEAKER
  SIZE ..... 12 x 6 cm oval (2 pcs.)
  VOICE COIL IMPEDANCE ..... 8 ohm at 400 Hz
ANTENNA INPUT IMPEDANCE
  VHF/UHF ..... 75 ohm Unbalanced
TUNING RANGES
  VHF-Channels ..... 2 thru 13
  UHF-Channels ..... 14 thru 69
  CATV Channels ..... 1 thru 125 (EIA, Channel Plan U.S.A.)

Specifications are subject to change without prior notice.

SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

IMPORTANT SERVICE SAFETY PRECAUTION

■ **Service work should be performed only by qualified service technicians who are thoroughly familiar with all safety checks and the servicing guidelines which follow:**

WARNING

1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC power before servicing.
3. Semiconductor heat sinks are potential shock hazards when the chassis is operating.
4. The chassis in this receiver has two ground systems which are separated by insulating material. The non-isolated (hot) ground system is for the B+ voltage regulator circuit. The isolated ground system is for the low B+ DC voltages and the secondary circuit of the high voltage transformer.
   To prevent electrical shock use an isolation transformer between the line cord and power receptacle, when servicing this chassis.

SERVICING OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove the static charge by connecting a 10k ohm resistor in series with an insulated wire (such as a test probe) between the picture tube ground and the anode lead. (AC line cord should be disconnected from AC outlet.)

1. Picture tube in this receiver employs integral implosion protection.
2. Replace with tube of the same type number for continued safety.
3. Do not lift picture tube by the neck.
4. Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage anode completely.

X-RADIATION AND HIGH VOLTAGE LIMITS

1. Be sure all service personnel are aware of the procedures and instructions covering X-radiation. The only potential source of X-ray in current solid state TV receivers is the picture tube. However, the picture tube does not emit measurable X-Ray radiation, if the high voltage is as specified in the "High Voltage Check" instructions.
   It is only when high voltage is excessive that X-radiation is capable of penetrating the shell of the picture tube including the lead in the glass material. The important precaution is to keep the high voltage below the maximum level specified.
2. It is essential that servicemen have available at all times an accurate high voltage meter.
   The calibration of this meter should be checked periodically.
3. High voltage should always be kept at the rated value –no higher. Operation at higher voltages may cause a failure of the picture tube or high voltage circuitry and;also, under certain conditions, may produce radiation in exceeding of desirable levels.
4. When the high voltage regulator is operating properly there is no possibility of an X-radiation problem. Every time a color chassis is serviced, the brightness should be tested while monitoring the high voltage with a meter to be certain that the high voltage does not exceed the specified value and that it is regulating correctly.
5. Do not use a picture tube other than that specified or make unrecommended circuit modifications to the high voltage circuitry.
6. When trouble shooting and taking test measurements on a receiver with excessive high voltage, avoid being unnecessarily close to the receiver.
   Do not operate the receiver longer than is necessary to locate the cause of excessive voltage.

IMPORTANT SERVICE SAFETY PRECAUTION

(Continued)

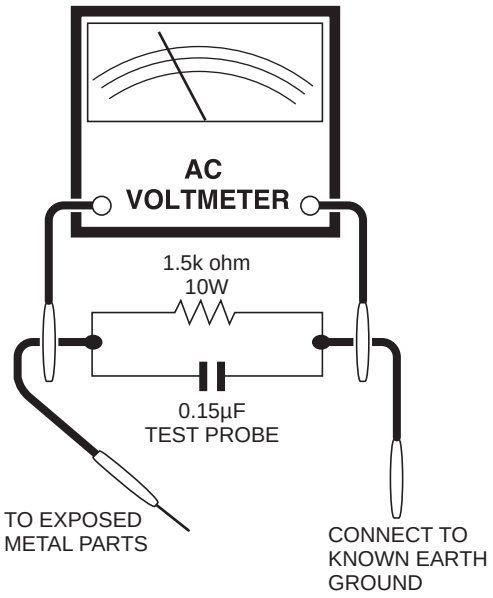
BEFORE RETURNING THE RECEIVER

(Fire & Shock Hazard)

Before returning the receiver to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators, etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.

- Plug the AC cord directly into a 110~220 volt AC outlet, (Do not use an isolation transformer for this test).
- Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15µF capacitor in series with all exposed metal cabinet parts and a known earth ground, such as electrical conduit or electrical ground connected to earth ground.
- Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity to measure the AC voltage drop across the resistor.
- Connect the resistor connection to all exposed metal parts having a return to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.
  AII checks must be repeated with the AC line cord plug connection reversed. (If necessary, a non-polarized adapter plug must be used only for the purpose of completing these check.)
  Any current measured must not exceed 0.5 milliamp. Any measurements not within the limits outlined above indicate of a potential shock hazard and corrective action must be taken before returning the instrument to the customer.



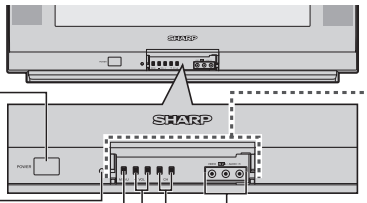
SAFETY NOTICE

Many electrical and mechanical parts in television receivers have special safety-related characteristics. These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.
Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠" and shaded areas in the Replacement Parts Lists and Schematic Diagrams.

For continued protection, replacement parts must be identical to those used in the original circuit. The use of substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire, X-radiation or other hazards.

LOCATION OF USER'S CONTROL

Front Panel



POWER
Press → On.
Press again → Off.

REMOTE CONTROL SENSOR

MENU
Press → Accesses MAIN MENU.
Press again → Exits MAIN MENU.

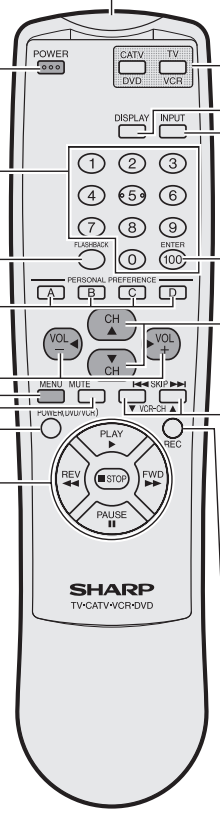
VOLUME UP/DOWN
(+) Increases sound.
(–) Decreases sound.

INSIDE DOOR

VIDEO/AUDIO IN 2 TERMINALS

CHANNEL UP/DOWN
(▲) Selects next higher channel
(▼) Selects next lower channel

Basic Remote Control Functions



POWER
Press → On.
Press again → Off.

REMOTE KEYPAD
Accesses any channel from keypad.

FLASHBACK
Returns to previous channel.

PERSONAL PREFERENCE
With the Personal Preference buttons, you can program your favorite programs by using the 4 categories A, B, C and D. The channels can be accessed quickly by using these buttons.

VOLUME UP/DOWN
(+) Increases sound.
(–) Decreases sound.
* Changes or selects the TV adjustments on On-Screen Display.

MENU
Press → Accesses MAIN MENU.
Press again → Exits MAIN MENU.

MUTE
Press → Mutes sound.
Press again → Restores sound.
* When sound is muted, CLOSED CAPTION appears if available.

POWER (DVD/VCR)
Press → On.
Press again → Off.

DVD/VCR CONTROL

Infrared Transmitter Window

CATV / DVD-TV/VCR MODE buttons
Press TV/VCR→ Signals sent will be for TV and VCR control.
Press CATV/DVD→ Signals sent will be for cable TV converter and DVD control.

DISPLAY
Press → Displays receiving channel for 4 seconds.
Press again → Removes display.
* Temporarily displays receiving channel when in Closed Caption mode.

INPUT
Press → Switches to external video INPUT 1 mode.
Press twice → Switches to external video INPUT 2 mode.
Press 3 times → Switches to external video INPUT 3 mode or COMPONENT mode.
Press 4 times → Switches back to the original TV mode.

ENTER
Used in some instances where a Cable Converter Box requires an "enter" command after selecting channels, when using the REMOTE KEYPAD button.

CHANNEL UP/DOWN
(▲) Selects next higher channel.
(▼) Selects next lower channel.
* Moves the " ✚ " mark on the MENU screens.

SKIP/VCR-CH

REC

Note:

- The above shaded buttons on the Remote Control glow in the dark. To use the glow-in-the-dark display on the remote control, place it under a fluorescent light or other lighting.
- The phosphorescent material contains no radioactive or toxic material, so it is safe to use.
- The degree of illumination will vary depending on the strength of lighting used.
- The degree of illumination will decrease with time and depending on the temperature.
- The time needed to charge the phosphorescent display will vary depending on the surrounding lighting.
- Sunlight and fluorescent lighting are the most effective when charging the display.

INSTALLATION AND SERVICE INSTRUCTIONS

Note: (1) When performing any adjustments to resistor controls and transformers use non-metallic screwdrivers or TV alignment tools.
(2) Before performing adjustments, the TV set must be on at least 15 minutes.

CIRCUIT PROTECTION

The receiver is protected by a 5.0A fuse (F1701), mounted on PWB-G, wired into one side of the AC line input.

X-RADIATION PROTECTOR CIRCUIT TEST

After service has been performed on the horizontal deflection system, high voltage system, B+ system, test the X-Radiation protection circuit to ascertain proper operation as follows:

1. Apply 110~220V AC using a variac transformer for accurate input voltage.
2. Allow for warm up and adjust all customer controls for normal picture and sound.
3. Receive a good local channel.
4. Connect a digital voltmeter to TP653 (P651 Pin3) and make sure that the voltmeter reads 13.85 ±0.6V DC.
5. Apply external 17.3V DC at TP653 by using an external DC supply, TV must be shut off.
6. To reset the protector, unplug the AC cord and plug the AC cord power on. Now make sure that normal picture appears on the screen.
7. If the operation of the horizontal oscillator does not stop in step 5, the circuit must be repaired before the set is returned to the customer.

HIGH VOLTAGE CHECK

High voltage is not adjustable but must be checked to verify that the receiver is operating within safe and efficient design limitations as specified checks should be as follows:

1. Connect an accurate high voltage meter between ground and anode of picture tube.
2. Operate receiver for at least 15 minutes at 110~220V AC line voltage, with a strong air signal or a properly tuned in test signal.
3. Enter the service mode and select the service adjustment "V11" and Bus data "01" (Y-mute on, CRT Cut Off).
4. The voltage should be below 31.5kV (at zero beam). If a correct reading cannot be obtained, check circuitry for malfunctioning components. After the voltage test, make Y-mute off to the normal mode.

For adjustments of this model, the bus data is converted to various analog signals by the D/A converter circuit.

Note: There are still a few analog adjustments in this series such as focus and master screen voltage. Follow the steps below whenever the service adjustment is required. See "Table-B" to determine, if service adjustments are required.

1. Service mode

Before putting unit into the service mode, check that customer adjustments are in the normal mode. Use the reset function in the video adjustment menu to ensure customer controls are in their proper (reset) position.

2. Service number selection

Once in the service mode, press the Ch-up or Ch-down button on the remote controller or at the set. The service adjustment number will vary in increments of one, from "V01" to "M20". Select the item you wish to adjust.

3. Data number selection

Press the Vol-up or Vol-down button to adjust the data number.

To enter the service mode and exit service mode.

To enter the service mode manually just press and hold the Vol-down and Ch-up buttons at the same time, plug the AC cord into a wall socket.
Now the TV set is switched on and enters the service mode.
To exit the service mode, turn the television off by pressing the power button.

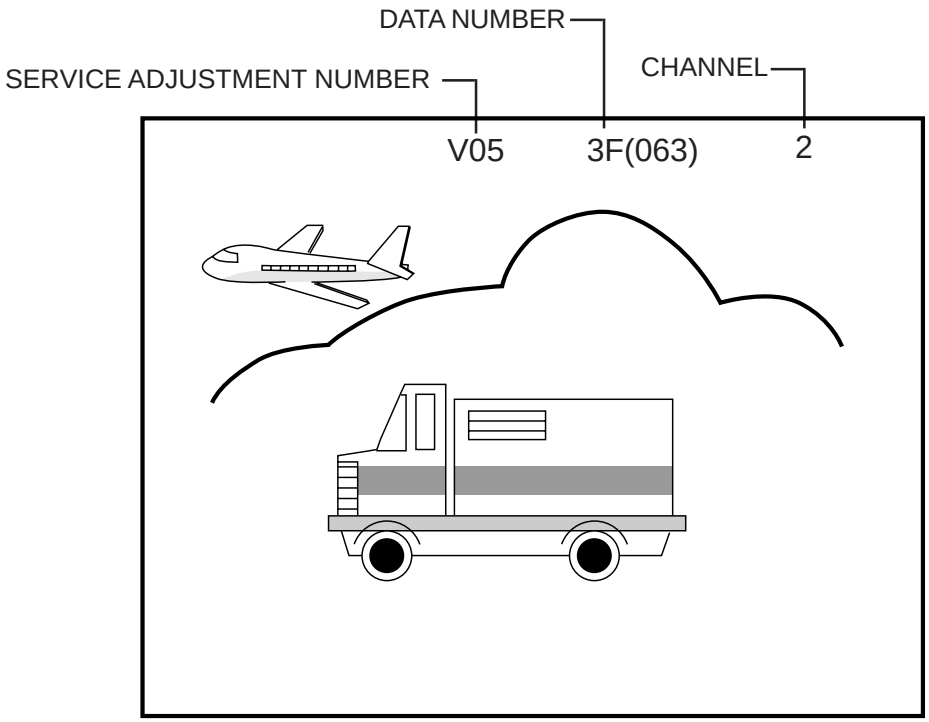


Figure A.

A. VCJ IC ADJUSTMENT

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTES	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
V01	PICTURE	0-15 (00h-0Fh)	8 (08h)		
V02	TINT	0-127 (00h-7Fh)	66 (42h)		
V03	COLOR	0-127 (00h-7Fh)	56 (38h)		
V05	BRIGHT	0-127 (00h-7Fh)	64 (40h)		
V06	R CUT-OFF	64-255 (40h-FFh)	64 (40h)		
V07	G CUT-OFF	64-255 (40h-FFh)	64 (40h)		
V08	B CUT-OFF	64-255 (40h-FFh)	64 (40h)		
V09	G/R DRIVE	0-127 (00h-7Fh)	64 (40h)		
V10	B DRIVE	0-127 (00h-7Fh)	64 (40h)		
V11	Y-MUTE/V-STOP	0-2	0 (00h)	Y-Mute / Holizontal “—”	
V12	SHARP	0-63 (00h-3Fh)	50 (32h)		32
V13	DC RESTORATION	0-3 (00h-03h)	2 (02h)		02
V14	BLACK STRETCH	0-3 (00h-03h)	2 (02h)		02
V15	ABL START POINT	0-3 (00h-03h)	3 (03h)		03
V16	ABL GAIN	0-3 (00h-03h)	2 (02h)		02
V17	γ POINT	0-3 (00h-03h)	0 (00h)		00
V19	ENERGY SAVE	0-63 (00h-3Fh)	63 (3Fh)	Offset	3F
V24	LOW-G	0-255 (00h-FFh)	12 (0Ch)	Color Temp.	F4
V25	LOW-B	0-255 (00h-FFh)	241 (F1h)	Color Temp.	E6
V26	ML-G	0-255 (00h-FFh)	0 (00h)	Color Temp.	FD
V27	ML-B	0-255 (00h-FFh)	247 (F7h)	Color Temp.	F8
V28	HIGH-G	0-255 (00h-FFh)	2 (02h)	Color Temp.	01
V29	HIGH-B	0-255 (00h-FFh)	8 (08h)	Color Temp.	06
V30	WPL	0-1	1 (01h)		01
V31	RGB CONTRAST	0-63 (00h-3Fh)	59 (3Bh)		3B
V34	VSM GAIN	0-3 (00h-03h)	1 (01h)		01
V36	BPF/TOF-INPUT	0-1	0 (00h)	External Input	00
V37	CORING	0-1	0 (00h)		00
V38	VSM PHASE	0-1	0 (00h)		00
V39	COLOR γ	0-1	0 (00h)		00
V40	SHARP-INPUT	0-63 (00h-3Fh)	44 (2Ch)	External Input	2C
V41	TINT-INPUT	0-127 (00h-7Fh)	62 (3Eh)	External Input	3E
V42	PICTURE-COMPONENT	0-15 (00h-0Fh)	6 (06h)	Component Input	
V43	TINT-COMPONENT	0-127 (00h-7Fh)	62 (3Eh)	Component Input	3E
V44	COLOR-COMPONENT	0-127 (00h-7Fh)	72 (48h)	Component Input	48
V45	BRIGHT-COMPONENT	0-127 (00h-7Fh)	84 (54h)	Component Input	
V46	R CUT OFF-COMPONENT	64-255 (00h-FFh)	64 (40h)	Component Input	
V47	G CUT OFF-COMPONENT	64-255 (00h-FFh)	64 (40h)	Component Input	
V48	B CUT OFF-COMPONENT	64-255 (00h-FFh)	64 (40h)	Component Input	
V49	G/R DRIVE-COMPONENT	0-127 (00h-7Fh)	64 (40h)	Component Input	
V50	B DRIVE-COMPONENT	0-127 (00h-7Fh)	64 (40h)	Component Input	
V51	SHARP-COMPONENT	0-63 (00h-3Fh)	44 (2Ch)	Component Input	2C
V52	TINT-S	0-127 (00h-7Fh)	62 (3Eh)	Component Input	3E
V53	C-TRAP	0-1 (00h-01h)	0 (00h)		00
V59	AUTO FRESH	0-1 (00h-01h)	0 (00h)		00
V60	SHARP P F	0-1 (00h-01h)	1 (01h)		01
V61	CD MATRIX	0-3 (00h-03h)	2 (02h)		02
V62	B-Y ATT	0-1 (00h-01h)	0 (00h)		00
V63	R-Y ATT	0-1 (00h-01h)	0 (00h)		00
V64	CD MATRIX COMPONENT	0-3 (00h-03h)	0 (00h)	Component Input	00
V65	B-Y ATT-COMPONENT	0-1 (00h-01h)	0 (00h)	Component Input	00
V66	R-Y ATT-COMPONENT	0-1 (00h-01h)	0 (00h)	Component Input	00
V67	BUZZ	0-1 (00h-01h)	1 (01h)		01
V68	RGB ABCL	0-1 (00h-01h)	1 (01h)		01
V69	PICTURE-VCOMP	0-100 (00h-64h)	47 (2Fh)	16:9 Format (Offset)	2F
V70	COLOR-VCOMP	0-100 (00h-64h)	50 (32h)	16:9 Format (Offset)	32
V71	BRIGHT-VCOMP	0-100 (00h-64h)	51 (33h)	16:9 Format (Offset)	33
R01	RF-AGC	0-63 (00h-3Fh)	36 (24h)		
R03	RF-AGC REF	0-255 (00h-FFh)	170 (AAh)	Standard value for the self-adjustment	AA
D01	V POSITION	0-7 (00h-07h)	0 (00h)		00
D02	H POSITION	0-31 (00h-1Fh)	15 (0Fh)		
D03	V SIZE	0-127 (00h-7Fh)	89 (59h)		
D04	H SIZE	0-63 (00h-3Fh)	36 (24h)		
D05	V-LINEARITY	0-15 (00h-0Fh)	8 (08h)		
D06	V-S CORRECTION	0-15 (00h-0Fh)	12 (0Ch)		0C
D07	EW PARABOLA	0-63 (00h-3Fh)	43 (2Bh)		
D08	EW TRAPEZIUM	0-63 (00h-3Fh)	36 (24h)		
D10	AFC GAIN	0-3 (00h-03h)	2 (02h)		02
D11	V EHT	0-7 (00h-07h)	6 (06h)		06
D12	H EHT	0-7 (00h-07h)	6 (06h)		06
D13	EW CORNER	0-31 (00h-1Fh)	8(08h)		08

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTES	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
D14	EW CORNER BOTTOM	19-81 (13h-51h)	50 (32h)	Offset toward D13.	32
D15	NOISE DET LEVEL	0-3 (00h-03h)	0 (00h)		00
D18	V CENTERING	0-63 (00-3Fh)	36 (24h)		
D19	V-AGC	0-1 (00h-01h)	0 (00h)		00
D20	V POSITION-VCOMP	0-7 (00h-07h)	0 (00h)	16:9 Format	00
D21	H POSITION-VCOMP	0-31 (00h-1Fh)	15 (0Fh)	16:9 Format	
D22	V SIZE-VCOMP	0-127 (00h-7Fh)	52 (34h)	16:9 Format	
D23	H SIZE-VCOMP	0-63 (00h-3Fh)	36 (24h)	16:9 Format	
D24	V-LINEARITY-VCOMP	0-15 (00h-0Fh)	8 (08h)	16:9 Format	
D25	V-C CORRECTION-VCOMP	0-15 (00h-0Fh)	10 (0Ah)	16:9 Format	0A
D26	EW PARABOLA-VCOMP	0-63 (00h-3Fh)	22 (16h)	16:9 Format	
D27	EW TRAPEZIUM-VCOMP	0-63 (00h-3Fh)	35 (23h)	16:9 Format	
D28	V EHT-VCOMP	0-7 (00h-07h)	6 (06h)	16:9 Format	06
D29	H EHT-VCOMP	0-7 (00h-07h)	6 (06h)	16:9 Format	06
D30	EW CORNER-VCOMP	0-31 (00h-1Fh)	12 (0Ch)	16:9 Format	0C
D31	EW CORNER BOTTOM-VCOMP	19-81 (13h-51h)	50 (32h)	Offset toward D30.	32
D32	V BLK UPPER-VCOMP	0-3 (00h-03h)	2 (02h)	16:9 Format	02
D33	V BLK LOWER-VCOMP	0-3 (00h-03h)	2 (02h)	16:9 Format	02
D34	V CENTERING-VCOMP	0-63 (00h-3Fh)	36 (24h)	16:9 Format	

B. SPECIAL SETTING

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTES	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
EX1	FAO VOLUME	0-50 (00h-32h)	36 (24h)		24
EX2	CC-POSITION	0-127 (00h-7Fh)	27 (1Bh)		
EX3	INT	0-255 (00h-FFh)	122 (7Ah)	Interrupt period adjustment.	7A
EX4	A-ATT	0-127 (00h-7Fh)	90 (5Ah)		5A
EX5	TUNER data	0-3 (00h-03h)	0 (00h)		00
EX6	Think chip-Slice LEVEL	0-255 (00h-FFh)	54 (36h)		12
EX7	RLY DELAY TIME	0-255 (00h-FFh)	0 (00h)	For the power control	00
EX8	ADG ON TIME	0-255 (00h-FFh)	10 (0Ah)	For the power control	0A

C. OPTION SETTING

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTES	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
OP1	OPTION1	0-255 (00h-FFh)	245 (F5h)		C5
OP2	OPTION2	0-255 (00h-FFh)	188 (BCh)		BE
OP3	OPTION3	0-255 (00h-FFh)	15 (0Fh)		07

D. SOUND ADJUSTMENT

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTES	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
M01	INPUT LEVEL	0-15 (00h-0Fh)	7 (07h)		
M02	MTS VCO	0-63 (00h-3Fh)	38 (26h)		
M03	FILTER	0-63 (00h-3Fh)	36 (24h)		
M04	WIDEBAND	0-63 (00h-3Fh)	28 (1Ch)		
M05	SPECTRAL	0-63 (00h-3Fh)	23 (17h)		
M09	SRS LEVEL	0-255 (00h-FFh)	224 (E0h)		E0
M10	BBE LEVEL	0-255 (00h-FFh)	217 (D9h)		D9
M11	SRS & BBE LEVEL	0-255 (00h-FFh)	208 (D0h)		D0
M12	SRS & BBE OFF LEVEL	0-255 (00h-FFh)	228 (E4h)		E4
M13	SRS Effect	2-3 (02h-03h)	2 (02h)		02
M14	BBE-L Effect	0-15 (00h-0Fh)	15 (0Fh)		0F
M15	BBE-H Effect	0-15 (00h-0Fh)	15 (0Fh)		0F
M16	AGC Level	0-7 (00h-07h)	1 (01h)		01
M17	BASS Offset	0-31 (00h-1Fh)	15 (0Fh)		0F
M18	TREBLE Offset	0-31 (00h-1Fh)	15 (0Fh)		0F
M19	BASS Offset-BBE	0-31 (00h-1Fh)	17 (11h)		11
M20	TREBLE Offset-BBE	0-31 (00h-1Fh)	16 (10h)		10

Holding down both the VOL-up and CH-up buttons on the TV set at service mode for more than 2 seconds will automatically write the above initial values into IC2101.

PART REPLACED	ADJUSTMENT		NOTES
	NECESSARY	UNNECESSARY	
IC2001		X	Data is stored in IC2101.
IC201	X		The adjustment is needed to compensate for characteristics of parts including IC201 and MTS level (M01).
IC2101	X		Holding down both the VOL-up and CH-up buttons on the TV set in the service mode for more than 2 seconds will automatically write the above initial values into IC2101 Then perform a complete adjustment.
CRT	X		Adjust items related to picture tube only.
IC3001	X		Adjust items related to MTS only (M01~M20).

SERVICE ADJUSTMENT

RF AGC Adjustment

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "R01".
3. Set the data value to point where no noise or beat appears.
4. Select another channel to confirm that no noise or beat appears.
   Note 1 : You will have to come out of the service mode to select another channel.
   Note 2 : Setting the data to "00" will produce a black raster.

Screen Adjustment

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "V03" and set the data value to "00" to set the color level to minimum. (Record original data code under adjustment "V03" before changing) You may skip this step, if you selected a B/W picture or monoscope pattern.
3. Select the service adjustment "V11" and adjust the data value to "01", this turn off the luminance signal (Y-mute).
4. Adjust the master screen control until the raster darkens to the point where raster is barely seen.
5. Adjust the service adjustments "V06" red, "V07" green and "V08" blue to obtain a good grey scale with normal whites at low brightness level.
6. Select the service adjustment "V11" and reset data to "00". Select the service adjustment "V03" and reset data to obtain normal color level.
7. For component input, the data value of "V46" red, "V47" green and "V48" blue is adjusted to follow the data value of "V06", "V07" and "V08" respectively.
8. Reset the master screen control to obtain normal brightness range.

White Balance Adjustment

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "V03" and set to "00" (minimum color)(Record original data code under adjustment "V03" before changing). "V03" does not have to be adjusted, if you selected a B/W picture or monoscope pattern.
3. Alternately adjust the service adjustment data of "V09" and "V10" until a good grey scale with normal whites is obtained. (RF Input)
4. For component input, the data value of "V49" and "V50" is adjusted to follow the data value of "V09" and "V10" respectively.
5. Select the service adjustment "V03" and reset data to obtain normal color level.

Sub-picture and Sub-Bright Adjustments

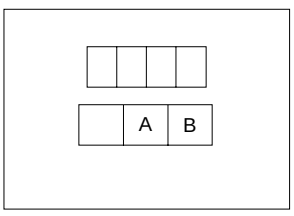
1. Receive the window pattern signal.

• RF INPUT (TU51)

2. Get into service adjustment data "V01" and "V05" and set the luminance as shown in figure "A" and "B" as below respectively.

• COMPONENT INPUT

3. Get in service adjustment data "V42" and "V45" and set the luminance as shown in figure "A" and "B" as below respectively.



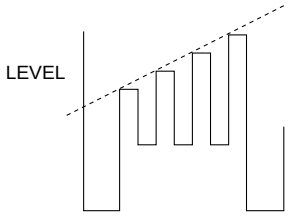
LUMINESCENCE CONFIRMATION

A: 120±10cd/m^2

B: 1.5±0.5cd/m^2

Sub-Tint Adjustment

1. Receive the half color bar signal.
• RF INPUT (TU51)
2. Get into Y-Mute by R/C, or by setting the "V11" bus data to "01".
3. Vary the "V02" bus data until the waveform becomes as stated below.



B-AMP Base waveform in step (TP47B)

Sub-Color Adjustment

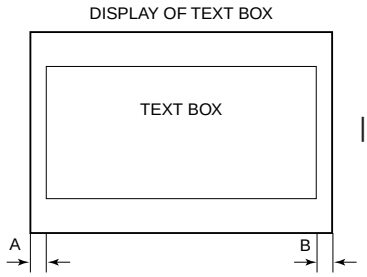
1. Receive a good local channel.
2. Make sure the customer color control is set to center position .
• RF INPUT (TU51)
3. Enter the service mode and select service adjustment "V03".
4. Adjust "V03" data value to obtain a normal color level.

Focus Adjustment

1. Receive a good local channel.
2. Adjust the FOCUS VR of the flyback transformer to make the image as fine as possible.

C. C Display Position Adjustment

1. Receive the lion head pattern signal.
2. Select "EX2" to display the text box.
3. Adjust the "EX2" bus data to let the text box displayed in the center.



| A-B | / 2

SPEC INSPECTION:| A-B | / 2 ≦ 5mm

Vertical-Size and Linearity Adjustments

1. Receive a good local channel.
(SCREEN FORMAT 4:3)
2. Enter the service mode and select the service adjustment "D03" for V-size.
3. Adjust the "D03" bus data to get the proper V-size.
4. For V-linearity adjustment, select data bus "D05" and adjust to get the proper vertical linearity.
(SCREEN FORMAT 16:9)
5. Input data of "D22" to mines 38 step from "D03" data. (V-SIZE)
6. Input data of "D24" same as "D05" data. (V-LIN)

Note: Aging for 10 min before adjustment. After the adjustment of V-center and V-size, re-adjustment for this V-line.

Vertical Phase Adjustment

(SCREEN FORMAT 4:3)
1. Enter the service mode and input data of “00h” on "D01".
2. Adjust "D18" data value so that picture is centered.
(SCREEN FORMAT 16:9)
3. Input data of "00h" on "D20".
4. Input data of "D34" same as "D18" data.

Horizontal Position Adjustment

1. Receive a good local channel.
(SCREEN FORMAT 4:3)
2. Enter the service mode and select the service adjustment "D02".
3. Adjust "D02" data value so that picture is centered.
(SCREEN FORMAT 16:9)
4. Input data of "D21" same as "D02" data.

Horizontal-Size Adjustment

1. Receive a good local channel.
(SCREEN FORMAT 4:3)
2. Enter the service mode and select the service adjustment "D04" for H-size.
3. Adjust the "D04" bus data to get the proper H-size.
(SCREEN FORMAT 16:9)
4. Input data of "D23" same as "D04" data.

EW-Parabola

1. Receive a good local channel.
(SCREEN FORMAT 4:3)
2. Enter the service mode and select the service adjustment "D07" for EW parabola.
3. Adjust the "D07" bus data to get the proper vertical straight line for both left and right side.
(SCREEN FORMAT 16:9)
4. Input data of "D26" to mines 21 step from "D07" data.

EW-Trapezium

1. Receive a good local channel.
(SCREEN FORMAT 4:3)
2. Enter the service mode and select the service adjustment "D08" for EW-Trapezium.
3. Adjust the "D08" bus data to get the best position display.
(SCREEN FORMAT 16:9)
4. Input data of "D27" same as "D08" data.

■ MTS ADJUSTMENT

MTS Level Adjustment

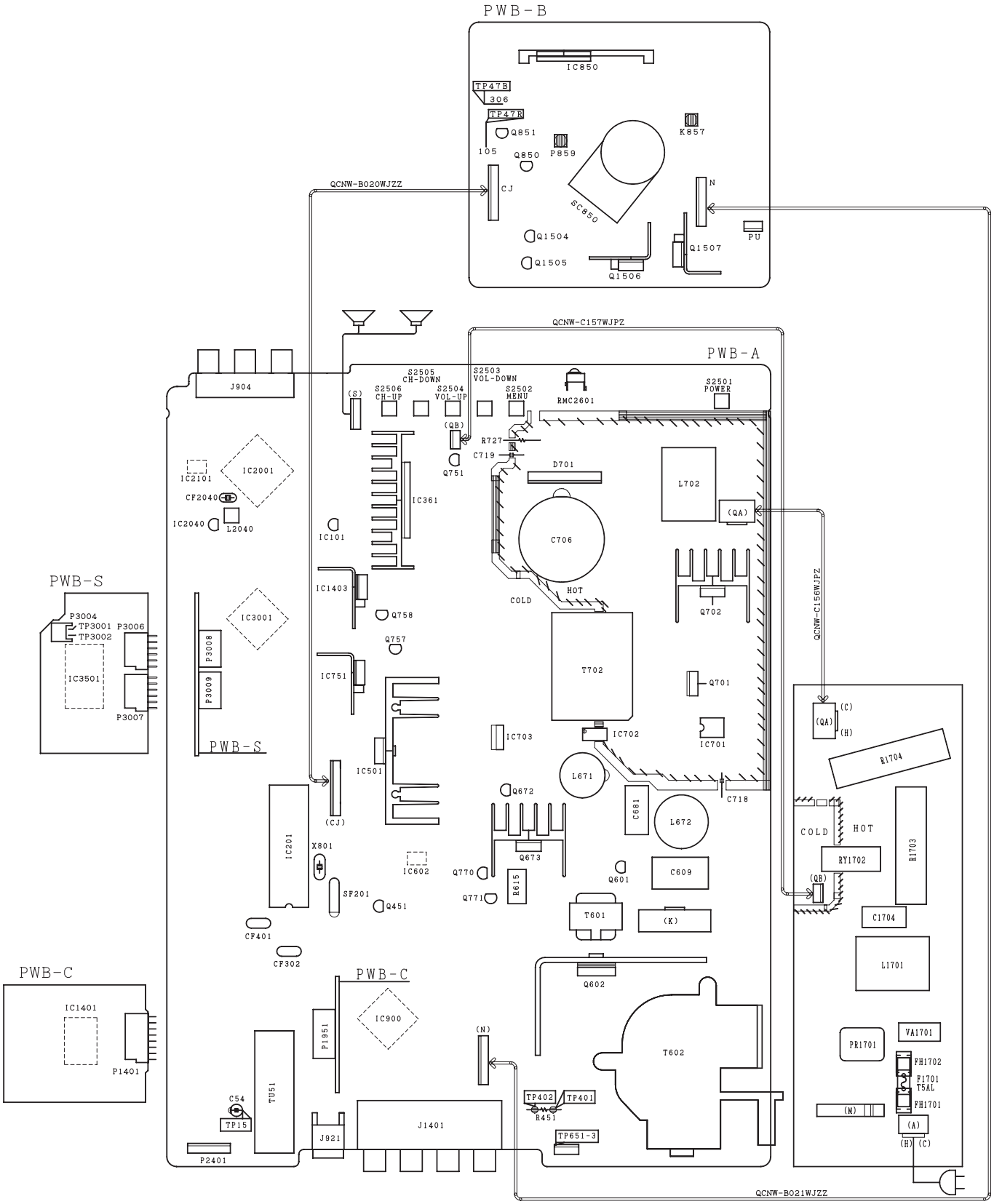
1. Set the sound volume above 1.
   Monoral signal: 400Hz, 100% modulation
2. Confirm "EX4" data is "5Ah".
3. Vary the "M01" bus data until the voltage to pin (39) of IC3001 to become the value as stated below.
   SETTING VOLTAGE
   ADJ spec : 490±10mVrms
   CHK spec: 490±20mVrms

Separation Adjustment

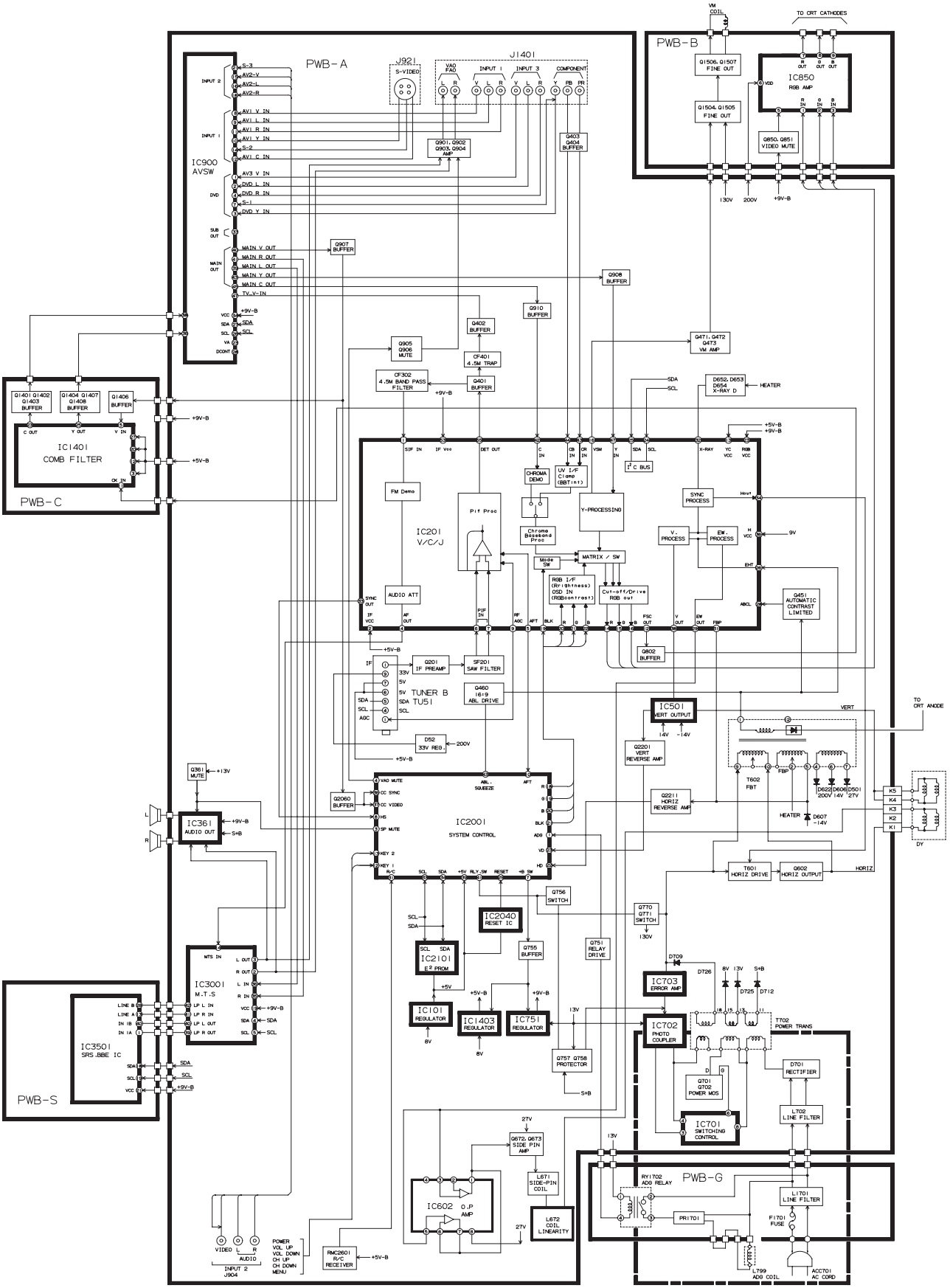
1. Input "SIGNAL 1" and vary the "M04" bus data to get the minimun AC voltage to pin (39) of IC3001.
2. Input "SIGNAL 2" and vary the "M05" bus data to get the minimun AC voltage to pin (39) of IC3001.
   SIGNAL 1: 300Hz, 30% modulation, Lch only, NR-ON
   SIGNAL 2: 3kHz, 30% modulation, Lch only, NR-ON

Note: SIGNAL 1 Adj. for wideband
SIGNAL 2 Adj. for spectral
Check the output of the speaker at the maximum volume as stated below.
Confirmation spec:
ADJ spec: above 25 dB
CHK spec: above 20 dB

CHASSIS LAYOUT



BLOCK DIAGRAM



DESCRIPTION OF SCHEMATIC DIAGRAM

NOTES:

1. *The unit of resistance "ohm" is omitted. (K=kW=1000W, M=MW)*
2. *All resistors are 1/16 watt, unless otherwise noted.*
3. *All capacitors are μ F, unless otherwise noted. (P=pF=μμF)*
4. *(G) indicates ±2% tolerance may be used.*
5. *⏚ indicates line isolated ground.*

VOLTAGE MEASUREMENT CONDITIONS:

1. *All DC voltages are measured with DVM connected between points indicated and chassis ground, line voltage set at 110~220V AC and all controls set for normal picture unless otherwise indicated.*
2. *All voltages measured with 1000μ V B & W or Color signal.*

WAVEFORM MEASUREMENT CONDITIONS:

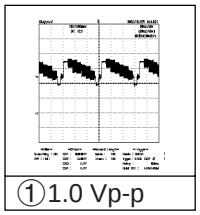
1. *Photographs taken on a standard gated color bar signal, the tint setting adjusted for proper color. The wave shapes at the red, green and blue cathodes of the picture tube depend on the tint, color level and picture control.*
2. *◔ indicates waveform check points (See chart, waveforms are measured from point indicated to chassis ground.)*

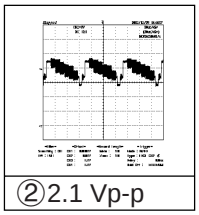
⚠ *AND SHADED ( ) COMPONENTS = SAFETY RELATED PARTS.*

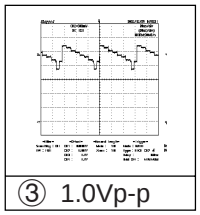
▲ *MARK= X-RAY RELATED PARTS.*

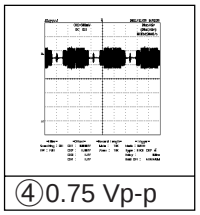
This circuit diagram is a standard one, printed circuits may be subject to change for product improvement without prior notice.

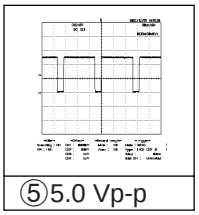
WAVEFORMS

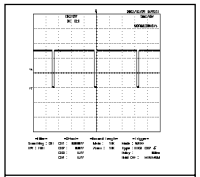

①1.0 Vp-p


②2.1 Vp-p


③ 1.0Vp-p


④0.75 Vp-p


⑤5.0 Vp-p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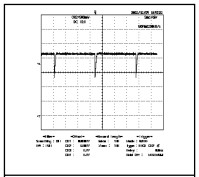
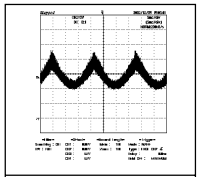
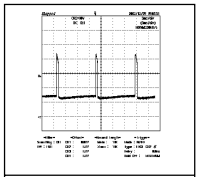
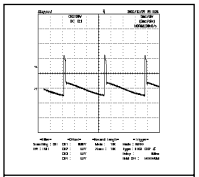
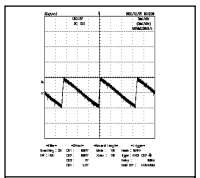
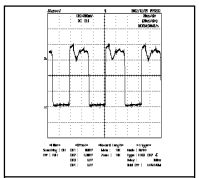

⑦0.85 Vp-p

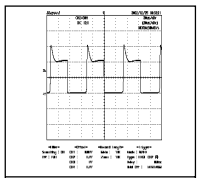

⑧12.5 Vp-p

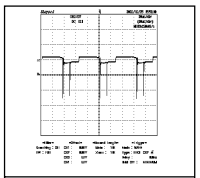

⑨32 Vp-p

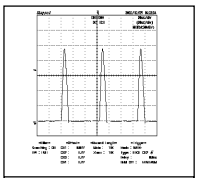

⑩56 Vp-p

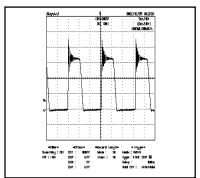

⑪2.0 Vp-p

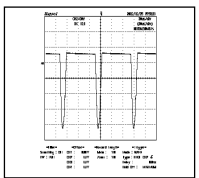

⑫0.8 Vp-p

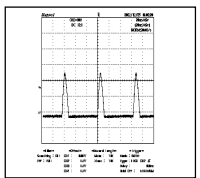

⑬160 Vp-p

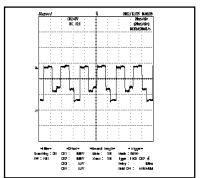

⑭14 Vp-p

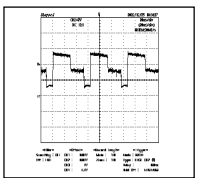

⑮1150 Vp-p

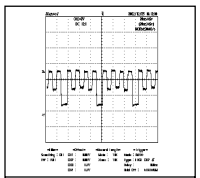

⑯450 Vp-p

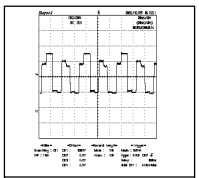

⑰250 Vp-p

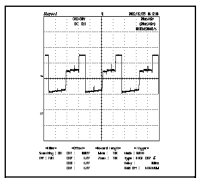

⑱29.5 Vp-p

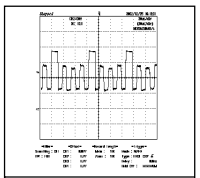

⑲3.0 Vp-p


⑳3.0 Vp-p

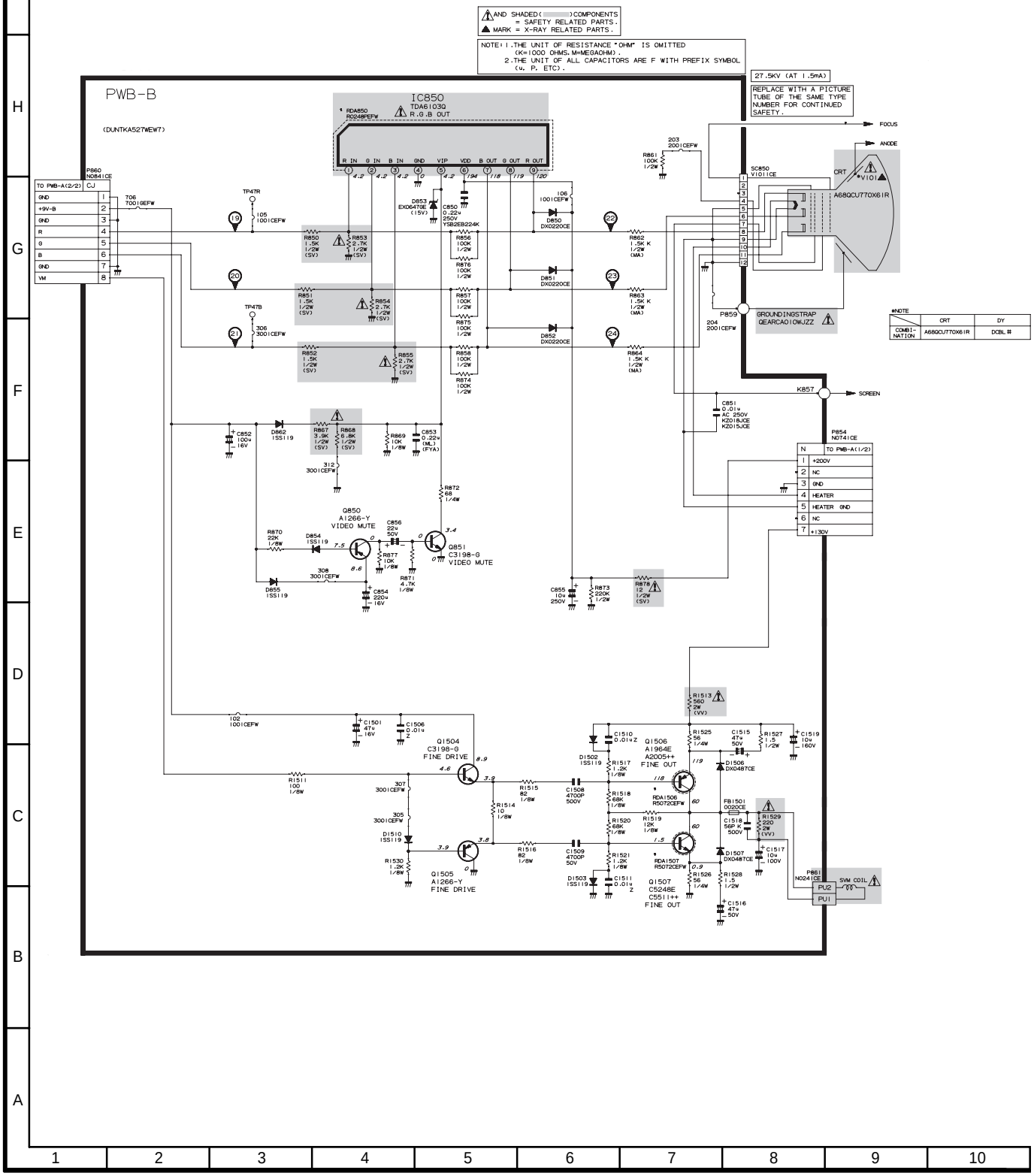

㉑3.0 Vp-p


㉒130 Vp-p

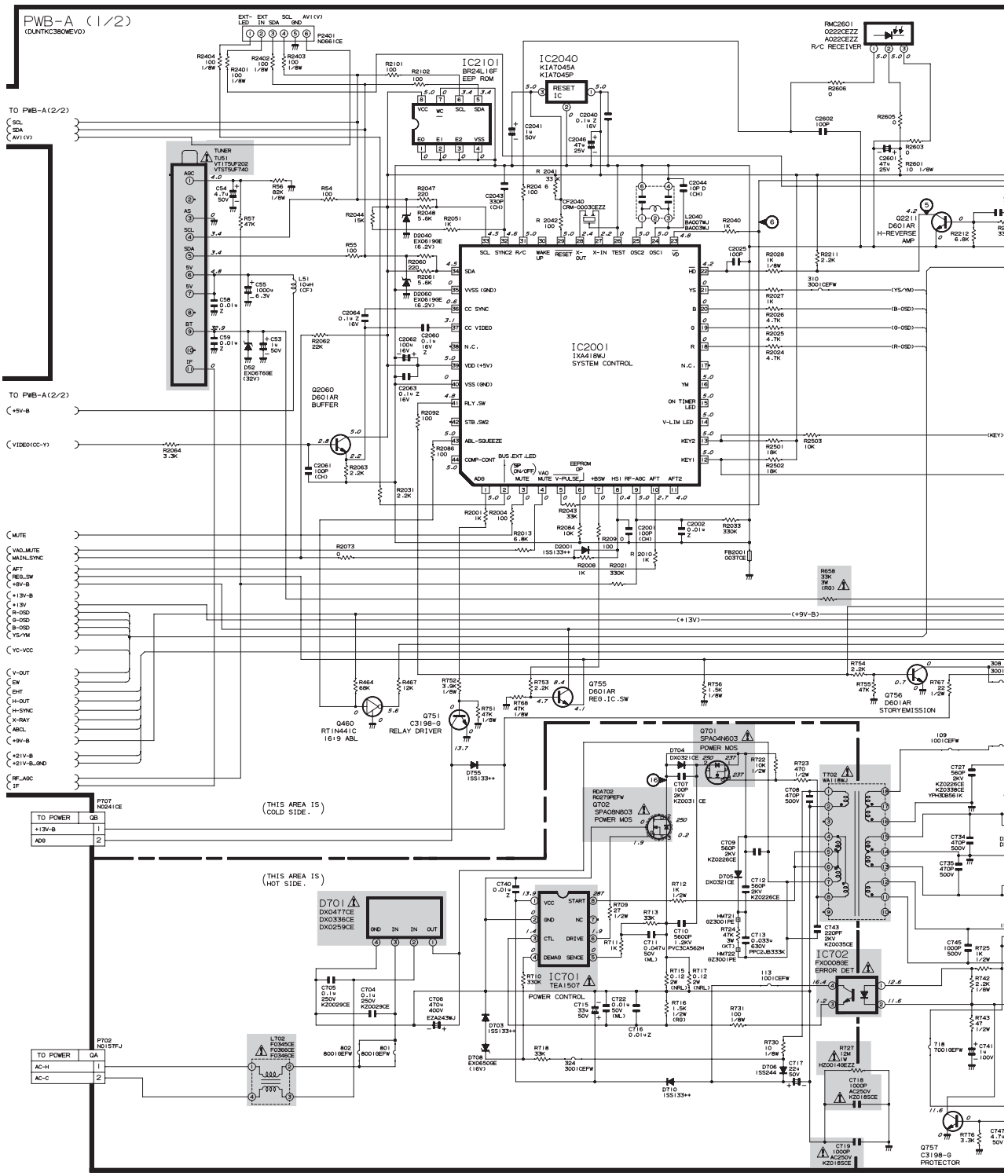

㉓125 Vp-p

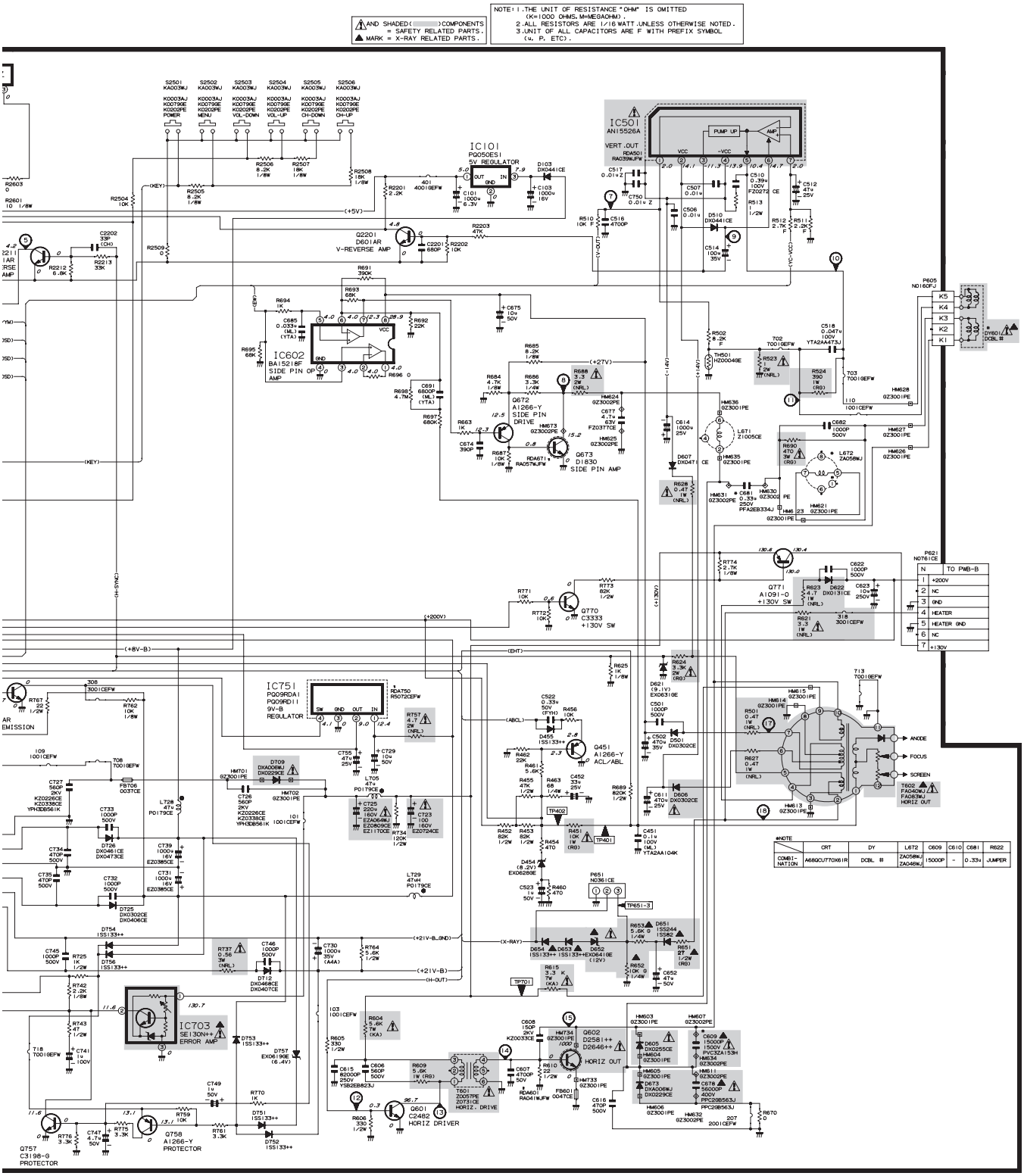

㉔130 Vp-p

SCHEMATIC DIAGRAM: CRT Unit



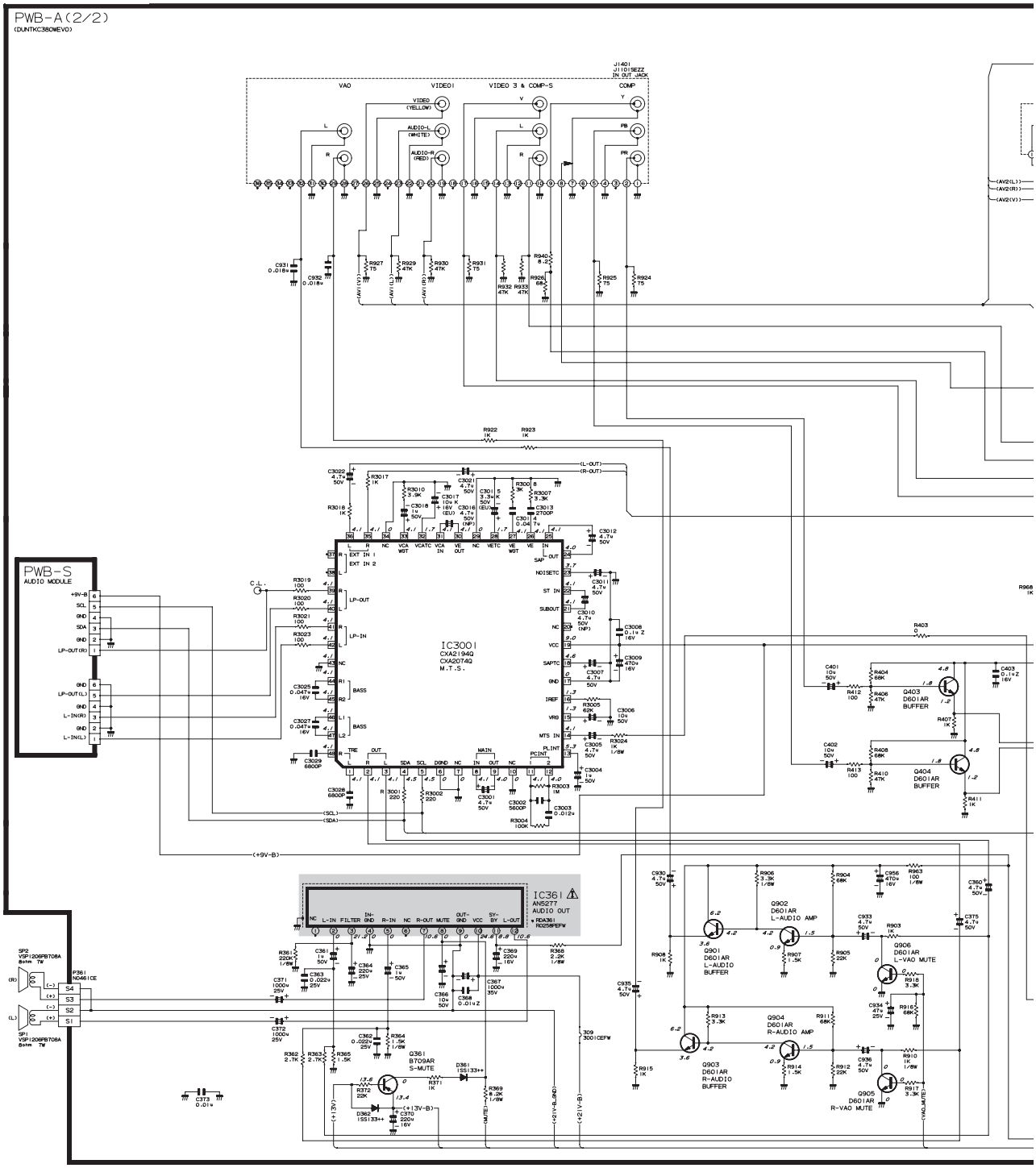
SCHEMATIC DIAGRAM: MAIN-1 Unit

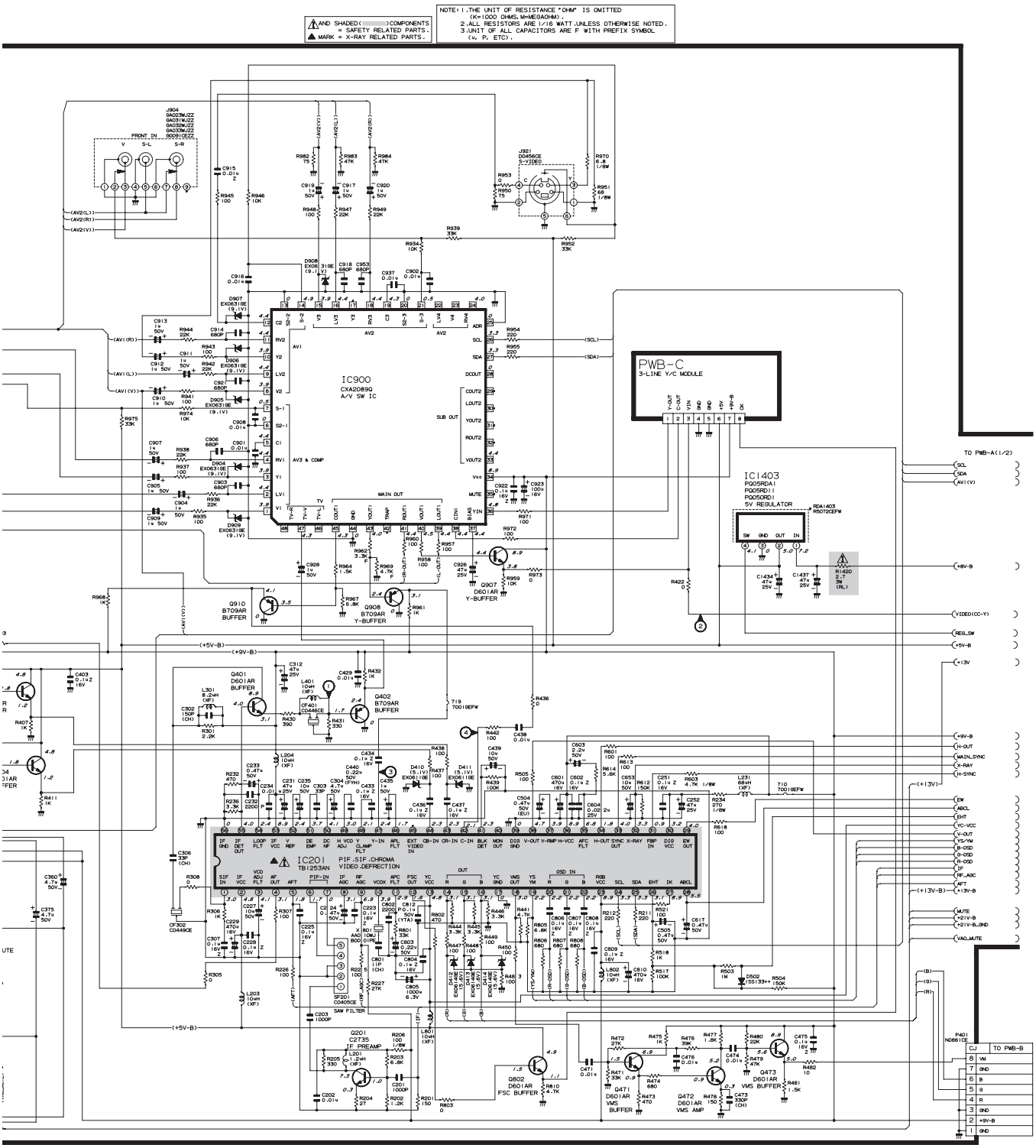




10	11	12	13	14	15	16	17	18	19

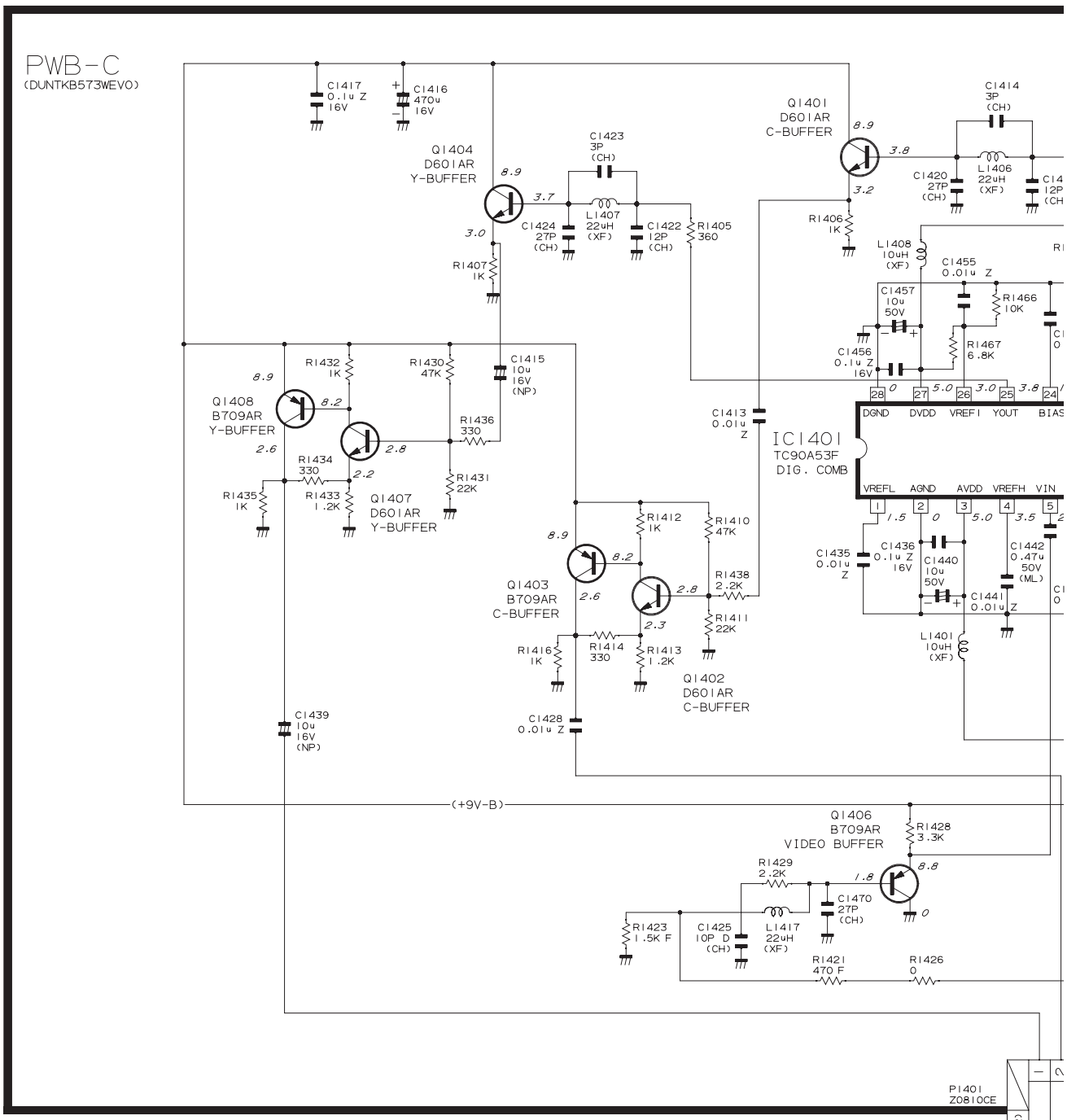
SCHEMATIC DIAGRAM: MAIN-2 Unit



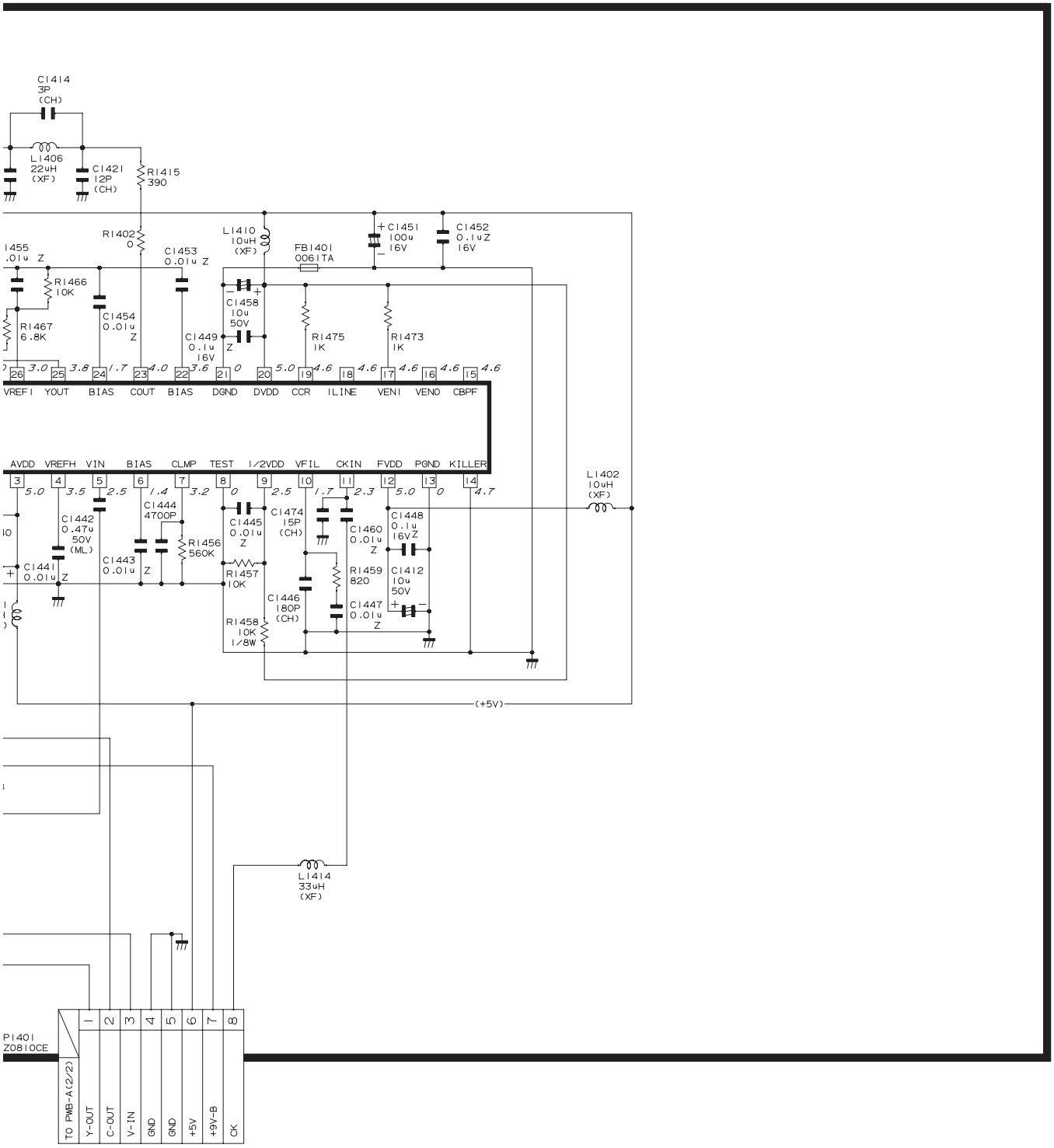


10	11	12	13	14	15	16	17	18	19

SCHEMATIC DIAGRAM: 3-LINE Y/C Unit

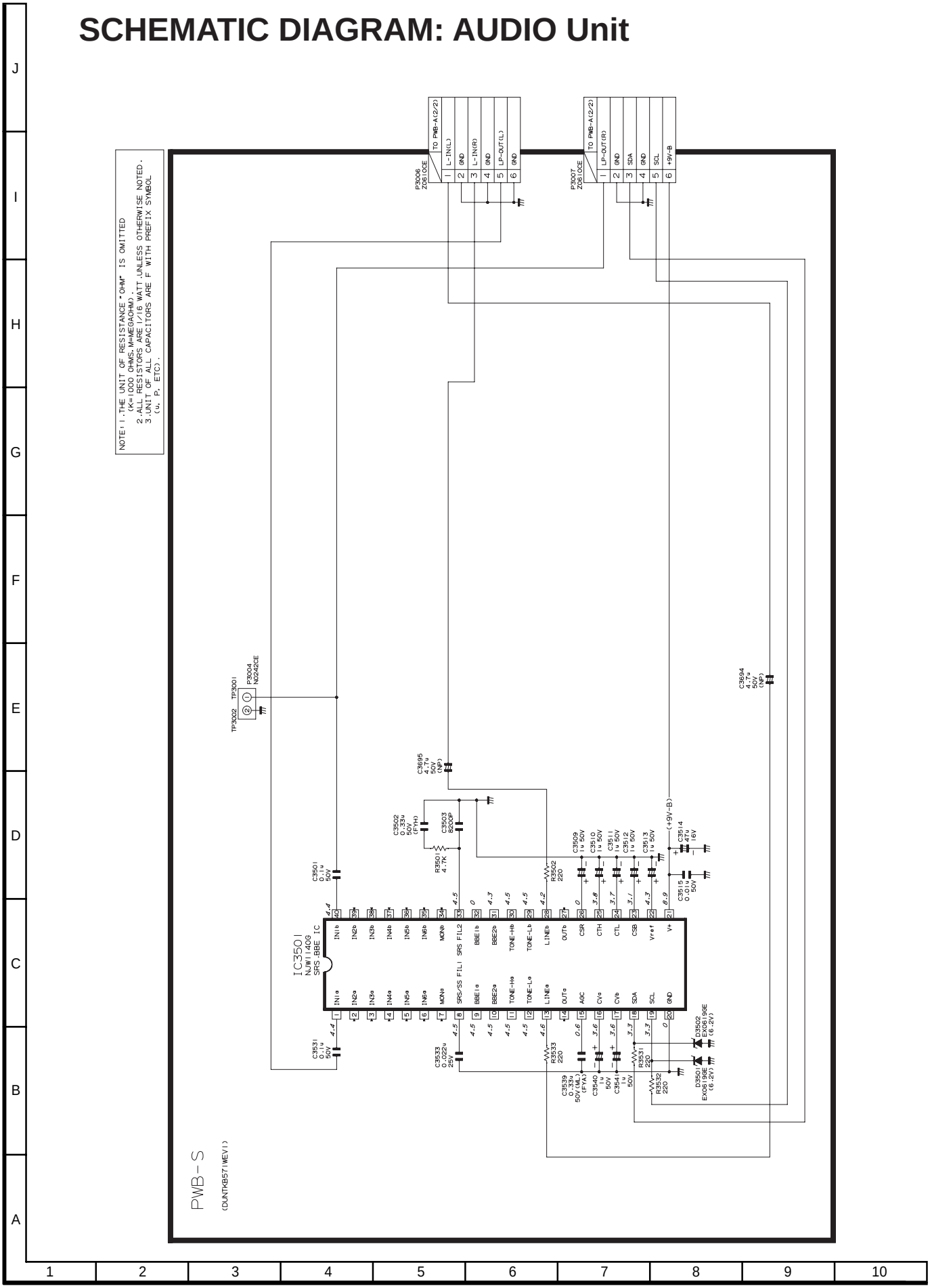


NOTE: 1.THE UNIT OF RESISTANCE "OHM" IS OMITTED
(K=1000 OHMS, M=MEGAOHM).
2.ALL RESISTORS ARE 1/16 WATT.UNLESS OTHERWISE NOTED.
3.UNIT OF ALL CAPACITORS ARE F WITH PREFIX SYMBOL
(u, P, ETC).

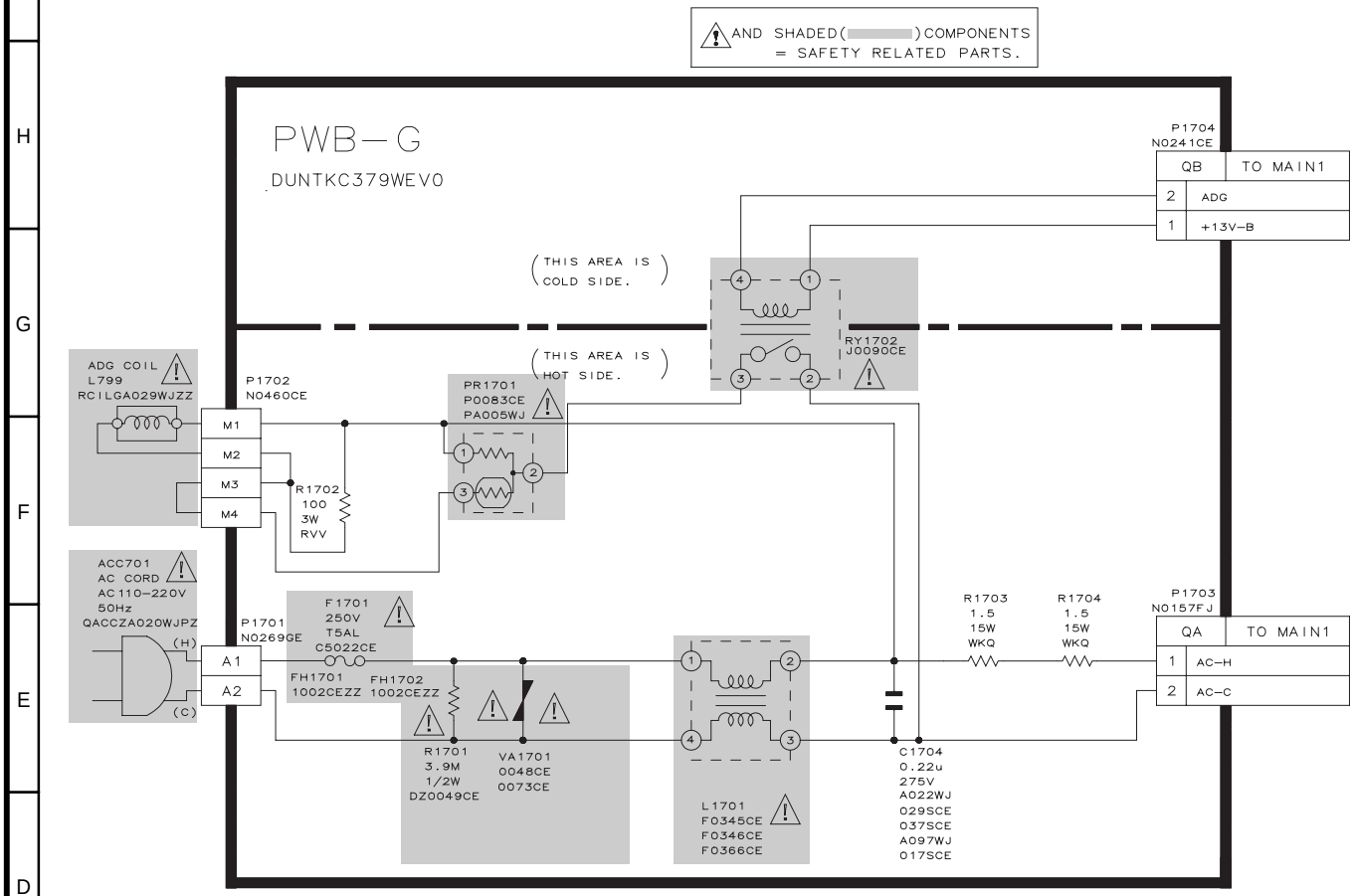


10	11	12	13	14	15	16	17	18	19

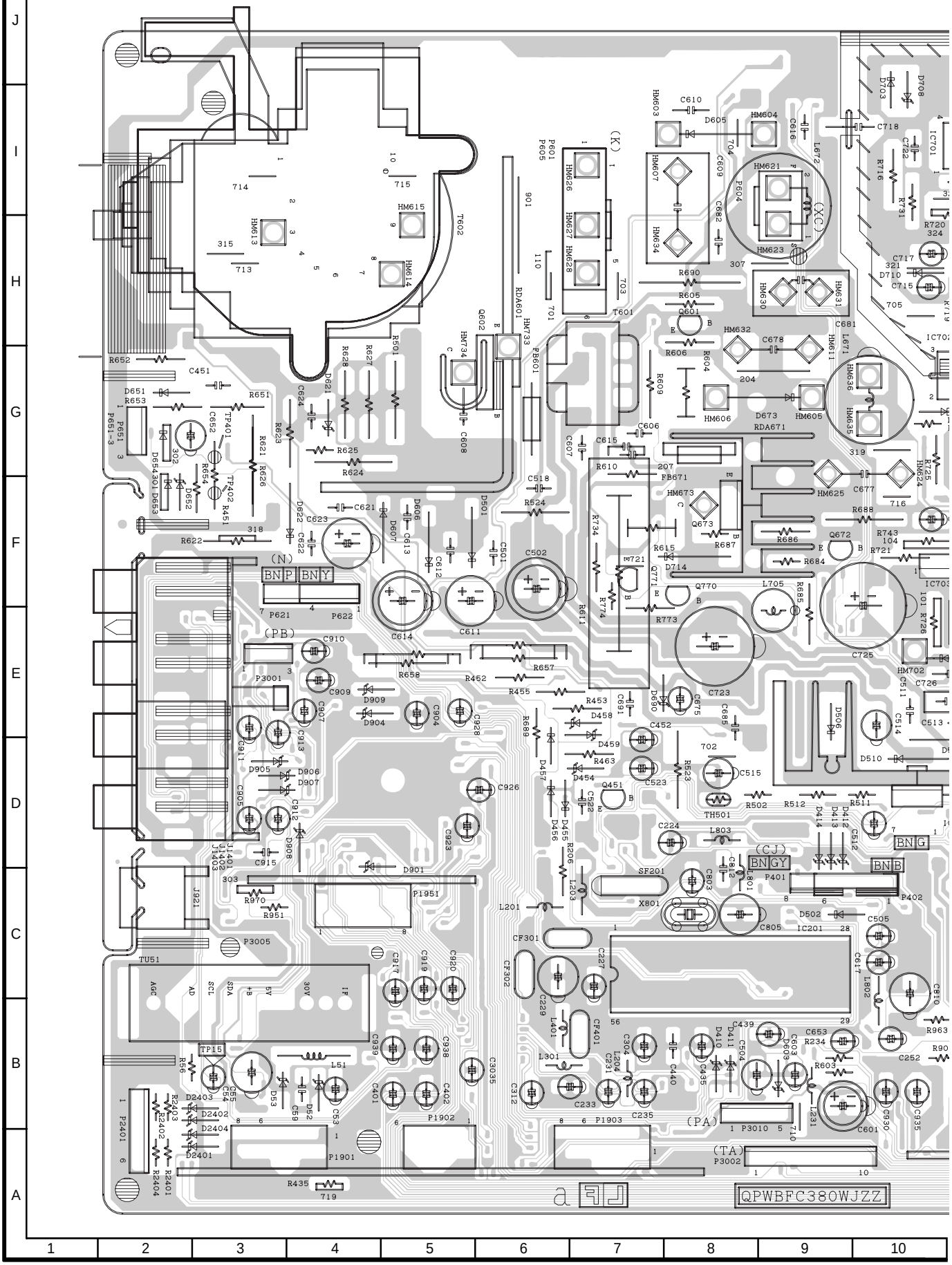
SCHEMATIC DIAGRAM: AUDIO Unit

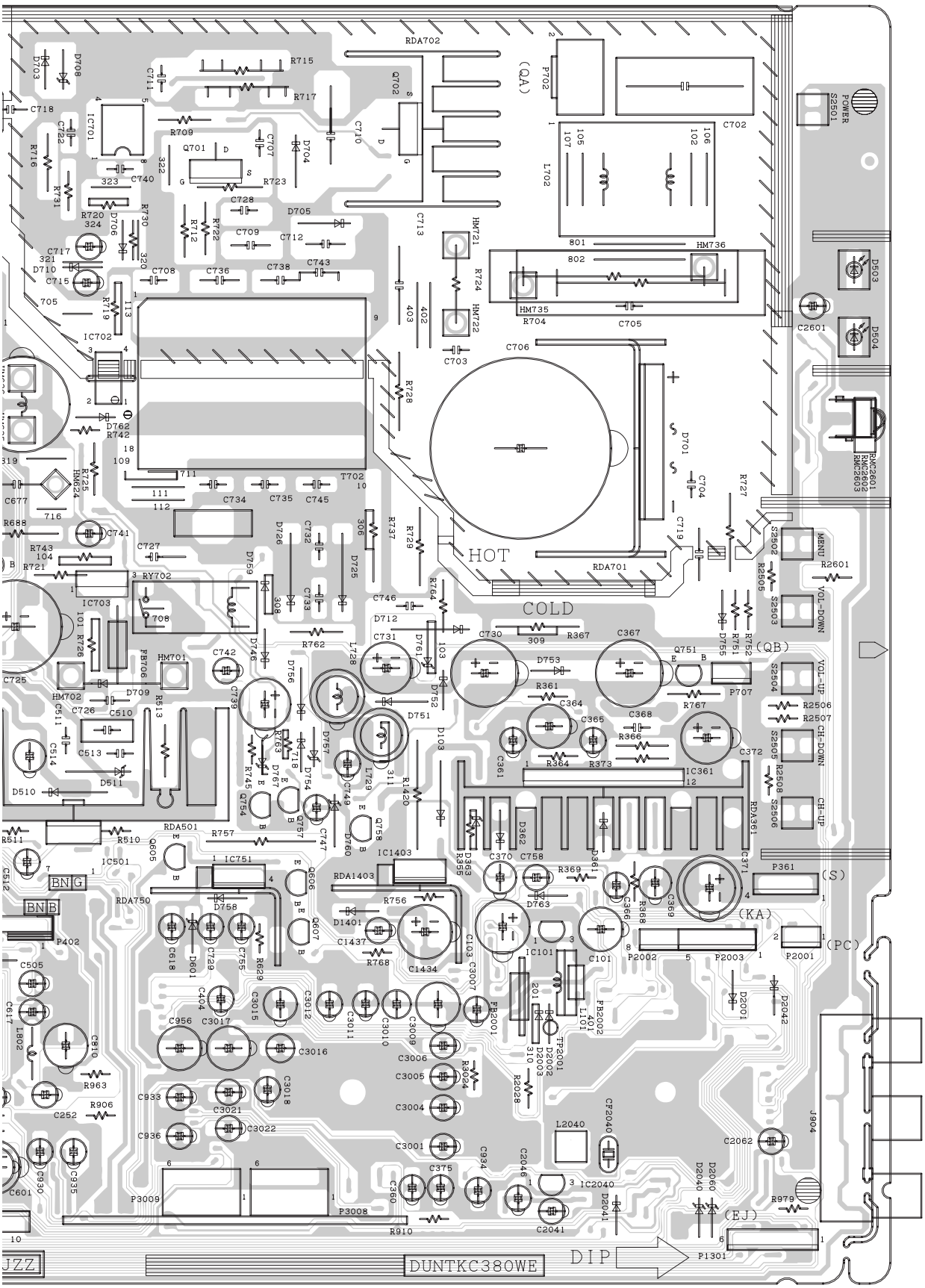


SCHEMATIC DIAGRAM: POWER Unit



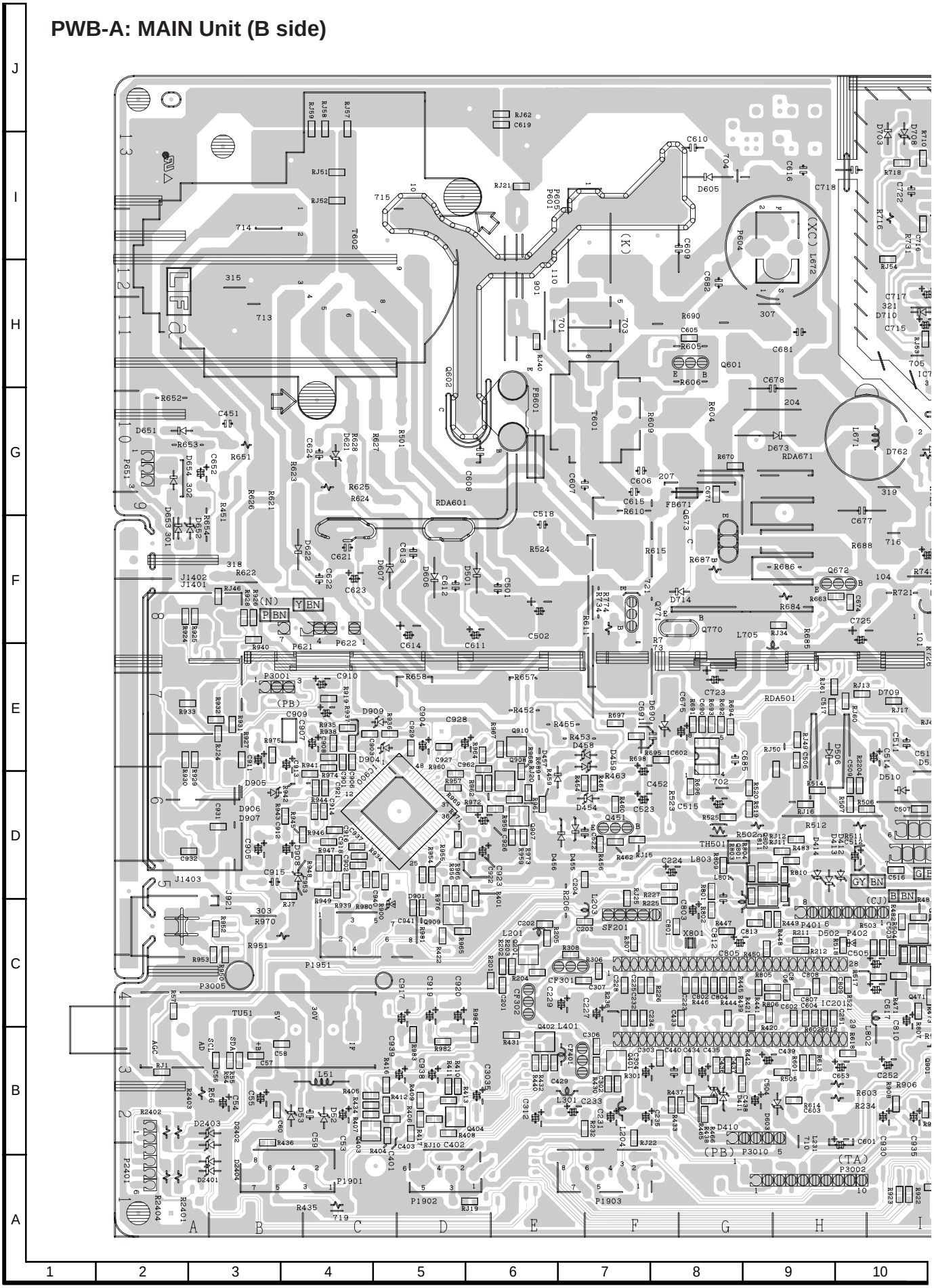
PWB-A: MAIN Unit (A side)

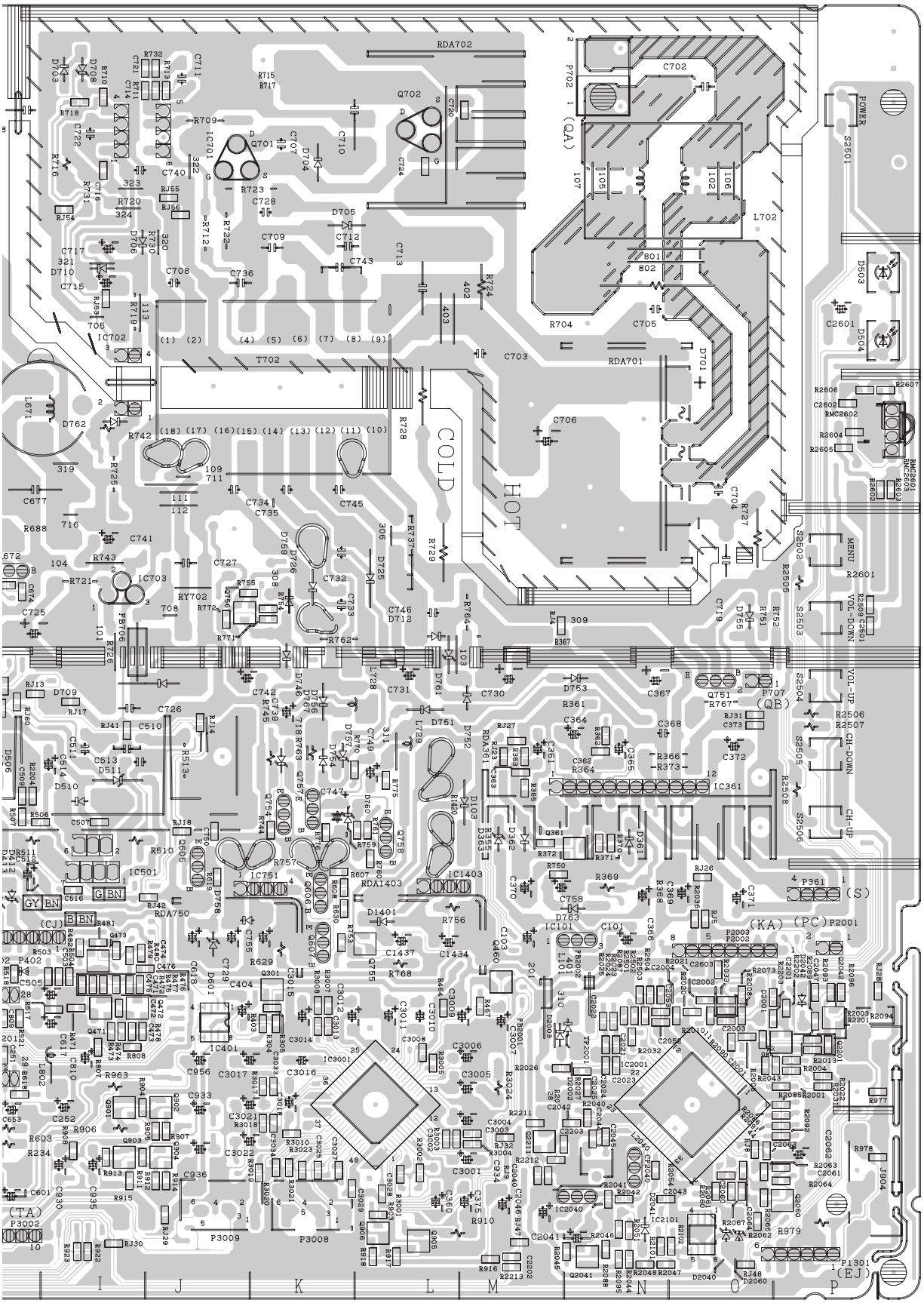




10	11	12	13	14	15	16	17	18	19

PWB-A: MAIN Unit (B side)




RDA702
Q702
Q701
IC701
C702
P702
(QA)
POWER
S2501
L702
C705
R704
RDA701
D701
C703
T702
IC702
C706
C704
R727
C719
D755
R751
R752
S2502
S2503
S2504
S2505
S2506
MENU
VOL- DOWN
VOL+ UP
CH- DOWN
CH+ UP
R2601
R2505
R2506
R2507
R2508
C2501
D503
D504
C2601
R2606
R2607
C2602
RMC2602
R2604
R2605
RMC2603
R2603
R2602
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HOT
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RY702
C725
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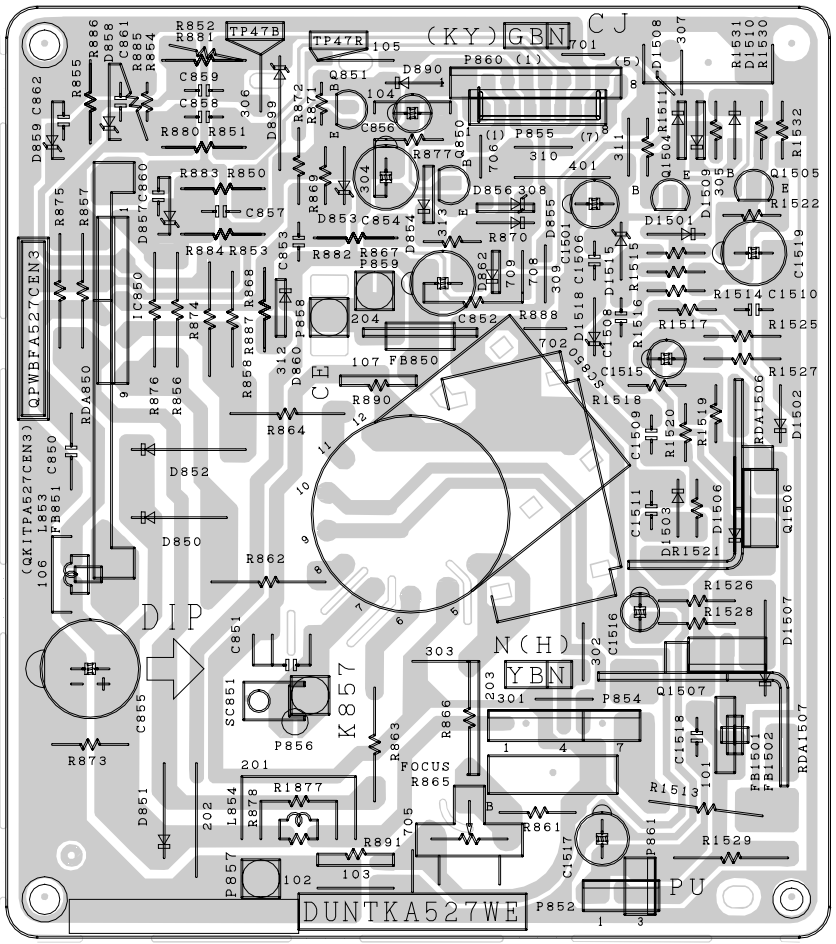
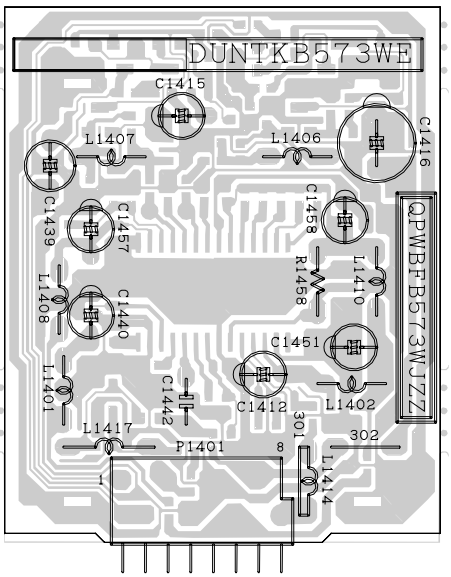
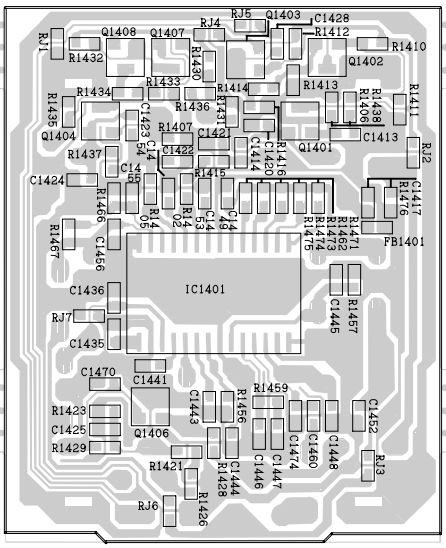


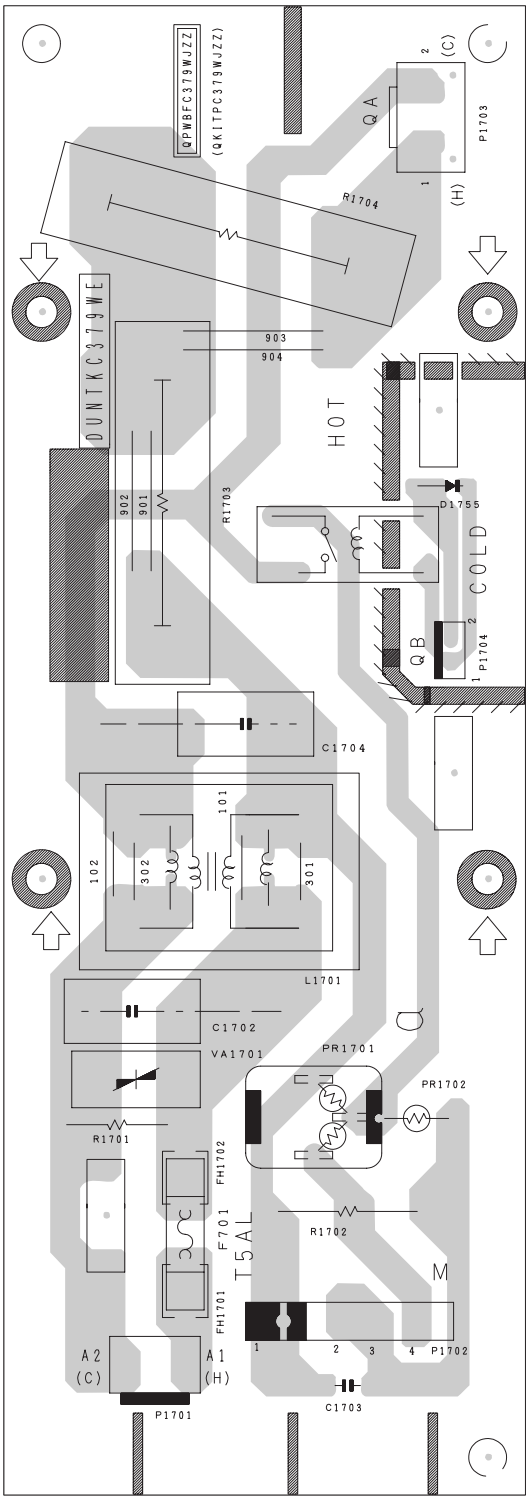
PWB-B: CRT Unit (Wiring side)



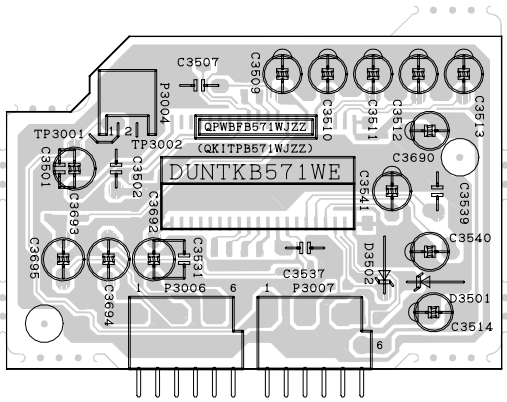
PWB-C: 3-LINE Y/C Unit (Wiring side)



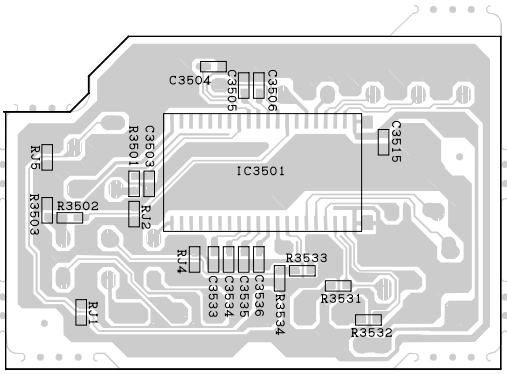
PWB-C: 3-LINE Y/C Unit (Chip Parts side)



PWB-G: POWER Unit (Wiring side)



PWB-S: AUDIO Unit (Wiring side)



PWB-S: AUDIO Unit (Chip Parts side)

PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual ; electrical components having such features are identified by ⚠ and shaded areas in the Replacement Parts Lists and Schematic Diagrams. The use of a substitute replacement part which does no have the same safety characteristic as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION

in **USA**: Contact your nearest SHARP Parts Distributor to order. For location of SHARP Parts Distributor, Please call Toll-Free; 1-800-BE-SHARP

★ MARK: SPARE PARTS-DELIVERY SECTION

▲ MARK: X-RAY RELATED PARTS

Ref. No.	Part No.	★	Description	Code

PICTURE TUBE

⚠ V101	VB68QCU770X5E	X	Picture Tube	CD
⚠ L799	RCiLGA029WJZZ	X	Degaussing Coil	AP
⚠	QEARCA010WJZZ	X	Ground-Part	AD

PRINTED WIRING BOARD ASSEMBLIES *(NOT REPLACEMENT ITEM)*

PWB-A	DUNTKC380WEV0	-	MAIN Unit	—
PWB-B	DUNTKA527WEW7	-	CRT Unit	—
PWB-C	DUNTKB573WEV0	-	3-LINE Y/C Unit	—
PWB-G	DUNTKC379WEV0	-	POWER Unit	—
PWB-S	DUNTKB571WEV1	-	AUDIO Unit	—

Ref. No.	Part No.	★	Description	Code

DUNTKC380WEV0 PWB-A MAIN UNIT

TUNER

NOTE: THE PARTS HERES SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.

⚠	TU51	VTUVT1T5UF202	X	VHF Tuner	AP

INTEGRATED CIRCUITS

	IC101	VHiPQ050ES1-1+	X	PQ050ES1MXP	AP
▲⚠	IC201	VHiTB1253AN-1	X	TB1253AN	AP
⚠	IC361	VHiAN5277//-1	X	AN5277	AG
⚠	IC501	VHiAN15526A-1	X	AN15526A	AE
	IC602	VHiBA15218F2EY	X	BA15218F-E2	AB
⚠	IC701	VHiTEA1507/-1	X	TEA1507P/N1	AE
⚠	IC702	RH-FX0008GEZZ	X	PC123FY8	AB
▲⚠	IC703	VHiSE130N++-F	X	SE130N	AD
	IC751	VHiPQ09RDA1-1	X	PQ090RDA1SZ	AD
	IC900	VHiCXA2089Q-2Y	X	CXA2089Q-6T	AK
	IC1403	VHiPQ05RDA1-1	X	PQ050RDA1SZ	AD
	IC2001	RH-iXA418WJZZQ	X	TMP88CS38BFG	AN
	IC2040	VHiKiA7045A-1+	X	KIA7045AP	AB
	IC2101	VHiBR24L16F-1Y	X	BR24L16F-WE2	AC
	IC3001	VHiCXA2194Q-1Y	X	CXA2194Q/-T6	AP

TRANSISTORS

	Q201	VS2SC2735//1EY	X	2SC2735	AB
	Q361	VS2SB709AR/-1Y	X	2SB709AR	AB
	Q401	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q402	VS2SB709AR/-1Y	X	2SB709AR	AB
	Q403	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q404	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q451	VS2SA1266-Y-1+	X	2SA1266-Y	AB
	Q460	VSRT1N441C/-1Y	X	RT1N441C	AB
	Q471	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q472	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q473	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q601	VS2SC2482//-1+	X	2SC2482	AB
⚠	Q602	VS2SD2581++2E	X	2SD2581	AG
	Q672	VS2SA1266-Y-1+	X	2SA1266-Y	AB
	Q673	VS2SD1830//1E	X	2SD1830	AD
⚠	Q701	VSSPA04N603-1	X	SPA04N603	AF
⚠	Q702	VSSPA08N803-1	X	SPA08N803	AL
	Q751	VS2SC3198-G-1+	X	2SC3198-G	AB
	Q755	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q756	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q757	VS2SC3198-G-1+	X	2SC3198-G	AB
	Q758	VS2SA1266-Y-1+	X	2SA1266-Y	AB
	Q770	VS2SC3333//-1+	X	2SC3333	AB
	Q771	VS2SA1091-O1A+	X	2SA1091-O	AC
	Q802	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q901	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q902	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q903	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q904	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q905	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q906	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q907	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q908	VS2SB709AR/-1Y	X	2SB709AR	AB
	Q910	VS2SB709AR/-1Y	X	2SB709AR	AB
	Q2060	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q2201	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q2211	VS2SD601AR/-1Y	X	2SD601AR	AB

DIODES

D52	RH-EX0676GEZZY	X	Zener Diode, 32V	AB
D103	RH-DX0441CEZZY	X		AB
D361	VHD1SS133++-1Y	X	1SS133	AA
D362	VHD1SS133++-1Y	X	1SS133	AA
D410	RH-EX0611GEZZY	X	Zener Diode, 5.1V	AB
D411	RH-EX0611GEZZY	X	Zener Diode, 5.1V	AB
D412	RH-EX0614GEZZY	X	Zener Diode, 5.6V	AB

Ref. No.	Part No.	★	Description	Code
D413	RH-EX0614GEZZY	X	Zener Diode, 5.6V	AB
D414	RH-EX0614GEZZY	X	Zener Diode, 5.6V	AB
D454	RH-EX0628GEZZY	X	Zener Diode, 8.2V	AB
D455	VHD1SS133++-1Y	X	1SS133	AA
D501	RH-DX0302CEZZY	X		AB
D502	VHD1SS133++-1Y	X	1SS133	AA
D510	RH-DX0441CEZZY	X		AB
⚠ D605	RH-DX0255CEZZ	X		AD
⚠ D606	RH-DX0302CEZZY	X		AB
D607	RH-DX0471CEZZY	X		AB
D621	RH-EX0631GEZZY	X	Zener Diode, 9.1V	AB
⚠ D622	RH-DX0131CEZZY	X		AB
▲⚠ D651	VHD1SS244//-1Y	X	1SS244	AB
▲⚠ D652	RH-EX0641GEZZY	X	Zener Diode, 12V	AB
▲⚠ D653	VHD1SS133++-1Y	X	1SS133	AA
▲⚠ D654	VHD1SS133++-1Y	X	1SS133	AA
⚠ D673	RH-DXA006WJZZ	X		AB
⚠ D701	RH-DX0477CEZZ	X		AD
D703	VHD1SS133++-1Y	X	1SS133	AA
D704	RH-DX0321CEZZY	X		AB
D705	RH-DX0321CEZZY	X		AB
D706	VHD1SS244//-1Y	X	1SS244	AB
D708	RH-EX0650GEZZY	X	Zener Diode, 16V	AB
⚠ D709	RH-DXA006WJZZ	X		AB
D710	VHD1SS133++-1Y	X	1SS133	AA
D712	RH-DX0468CEZZ	X		AB
D725	RH-DX0302CEZZY	X		AB
D726	RH-DX0461CEZZ	X		AB
D751	VHD1SS133++-1Y	X	1SS133	AA
D752	VHD1SS133++-1Y	X	1SS133	AA
D753	VHD1SS133++-1Y	X	1SS133	AA
D754	VHD1SS133++-1Y	X	1SS133	AA
D755	VHD1SS133++-1Y	X	1SS133	AA
D756	VHD1SS133++-1Y	X	1SS133	AA
D757	RH-EX0619GEZZY	X	Zener Diode, 6.4V	AB
D904	RH-EX0631GEZZY	X	Zener Diode, 9.1V	AB
D905	RH-EX0631GEZZY	X	Zener Diode, 9.1V	AB
D906	RH-EX0631GEZZY	X	Zener Diode, 9.1V	AB
D907	RH-EX0631GEZZY	X	Zener Diode, 9.1V	AB
D908	RH-EX0631GEZZY	X	Zener Diode, 9.1V	AB
D909	RH-EX0631GEZZY	X	Zener Diode, 9.1V	AB
D2001	VHD1SS133++-1Y	X	1SS133	AA
D2040	RH-EX0619GEZZY	X	Zener Diode, 6.2V	AB
D2060	RH-EX0619GEZZY	X	Zener Diode, 6.2V	AB

PACKAGED CIRCUITS

TH501	RH-HZ0004GEZZ+	X	Thermistor	AB
X801	RCRSAA010WJZZ	X	Crystal	AC

FILTERS AND COILS

CF302	RFiLC0449CEZZ+	X	Filter		AB
CF401	RFiLC0446CEZZ+	X	Filter		AB
L51	VP-CF100K0000Y	X	Peaking	10µH	AB
L201	VP-XF1R2K0000Y	X	Peaking	1.2µH	AB
L203	VP-XF100K0000Y	X	Peaking	10µH	AB
L204	VP-XF100K0000Y	X	Peaking	10µH	AB
L231	VP-XF680K0000Y	X	Peaking	68µH	AB
L301	VP-XF8R2K0000Y	X	Peaking	8.2µH	AB
L401	VP-XF100K0000Y	X	Peaking	10µH	AB
L671	RCiLZ1005CEZZ	X	Coil		AD
L672	RCiLZA058WJZZ	X	Coil		AE
⚠ L702	RCiLF0345CEZZ	X	Coil		AC
L705	RCiLP0179CEZZ+	X	Coil	47µH	AB
L728	RCiLP0179CEZZ+	X	Coil	47µH	AB
L729	RCiLP0179CEZZ+	X	Coil	47µH	AB
L801	VP-XF100K0000Y	X	Peaking	10µH	AB
L802	VP-XF100K0000Y	X	Peaking	10µH	AB
L2040	RCiLBA007WJZZ	X	Oscillation Coil		AB
SF201	RFiLC0405CEZZ	X	Filter		AD

TRANSFORMERS

⚠ T601	RTRNZ0057PEZZ	X	Transformer	AD
▲⚠ T602	RTRNFA040WJZZ	X	H-Volt Transformer	AT
⚠ T702	RTRNWA118WJZZ	X	Transformer	AH

Ref. No.	Part No.	★	Description	Code

CAPACITORS

C53	VCEA0A1HW105M+X	X	1	50V	Electrolytic	AB
C54	VCEA0A1HW475M+X	X	4.7	50V	Electrolytic	AB
C55	VCEA0A0JW108M+	X	1000	6.3V	Electrolytic	AB
C58	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA
C59	VCKYPA1HF103Z+	X	0.01	50V	Ceramic	AA
C101	VCEA0A0JW108M+	X	1000	6.3V	Electrolytic	AB
C103	VCEA0A1CW108M+X	X	1000	16V	Electrolytic	AB
C201	VCKYCY1HB102KY	X	1000p	50V	Ceramic	AA
C202	VCKYCY1HB103KY	X	0.01	50V	Ceramic	AA
C203	VCKYCY1HB102KY	X	1000p	50V	Ceramic	AA
C223	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C224	VCEA0A1HW474M+X	X	0.47	50V	Electrolytic	AB
C225	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C227	VCEA0A1HW106M+X	X	10	50V	Electrolytic	AB
C228	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C229	VCEA0A1CW477M+X	X	470	16V	Electrolytic	AB
C231	VCEA0A1EW476M+X	X	47	25V	Electrolytic	AB
C232	VCKYCY1HB222KY	X	2200p	50V	Ceramic	AA
C233	VCEA0A1HW474M+X	X	0.47	50V	Electrolytic	AB
C234	VCKYCY1HB103KY	X	0.01	50V	Ceramic	AA
C235	VCEA0A1HW106M+X	X	10	50V	Electrolytic	AB
C251	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C252	VCEA0A1EW476M+X	X	47	25V	Electrolytic	AB
C302	VCCCCY1HH151JY	X	150p	50V	Ceramic	AA
C303	VCCCCY1HH330JY	X	33p	50V	Ceramic	AA
C304	VCEA0A1HW475M+X	X	4.7	50V	Electrolytic	AB
C306	VCCCCY1HH330JY	X	33p	50V	Ceramic	AA
C307	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C312	VCEA0A1EW476M+X	X	47	25V	Electrolytic	AB
C360	VCEA0A1HW475M+X	X	4.7	50V	Electrolytic	AB
C361	VCEA0A1HW105M+X	X	1	50V	Electrolytic	AB
C362	VCKYCY1EB223KY	X	0.022	25V	Ceramic	AA
C363	VCKYCY1EB223KY	X	0.022	25V	Ceramic	AA
C364	VCEA0A1EW227M+X	X	220	25V	Electrolytic	AB
C365	VCEA0A1HW105M+X	X	1	50V	Electrolytic	AB
C366	VCEA0A1HW106M+X	X	10	50V	Electrolytic	AB
C367	VCEA0A1VW108M+X	X	1000	35V	Electrolytic	AB
C368	VCKYPA1HF103Z+	X	0.01	50V	Ceramic	AA
C369	VCEA0A1CW227M+X	X	220	16V	Electrolytic	AB
C370	VCEA0A1CW227M+X	X	220	16V	Electrolytic	AB
C371	VCEA0A1EW108M+X	X	1000	25V	Electrolytic	AB
C372	VCEA0A1EW108M+X	X	1000	25V	Electrolytic	AB
C373	VCKYCY1HB103KY	X	0.01	50V	Ceramic	AA
C375	VCEA0A1HW475M+X	X	4.7	50V	Electrolytic	AB
C401	VCEA0A1HW106M+X	X	10	50V	Electrolytic	AB
C402	VCEA0A1HW106M+X	X	10	50V	Electrolytic	AB
C403	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C429	VCKYCY1HB103KY	X	0.01	50V	Ceramic	AA
C433	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C434	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C435	VCEA0A1HW105M+X	X	1	50V	Electrolytic	AB
C436	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C437	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C438	VCKYCY1HB103KY	X	0.01	50V	Ceramic	AA
C439	VCEA0A1HW106M+X	X	10	50V	Electrolytic	AB
C440	VCFYFA1HA224J+	X	0.22	50V	Mylar	AB
C451	VCQYTA2AA104K+	X	0.1	100V	Mylar	AB
C452	VCEA0A1EW336M+X	X	33	25V	Electrolytic	AB
C471	VCKYCY1HB103KY	X	0.01	50V	Ceramic	AA
C473	VCCCCY1HH331JY	X	330p	50V	Ceramic	AB
C474	VCKYCY1HB103KY	X	0.01	50V	Ceramic	AA
C475	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C476	VCKYCY1HB103KY	X	0.01	50V	Ceramic	AA
C501	VCKYPA2HB102K+	X	1000p	500V	Ceramic	AB
C502	VCEA0A1VW477M+X	X	470	35V	Electrolytic	AB
C504	VCEACA1HC474M+X	X	0.47	50V	Electrolytic	AB
C505	VCEA0A1HW474M+X	X	0.47	50V	Electrolytic	AB
C506	VCKYCY1HB103KY	X	0.01	50V	Ceramic	AA
C507	VCKYCY1HB103KY	X	0.01	50V	Ceramic	AA
C510	RC-FZ0272CEZZ+	X	0.39	100V	Mylar	AB
C512	VCEA0A1EW476M+X	X	47	25V	Electrolytic	AB
C514	VCEA0A1VW107M+X	X	100	35V	Electrolytic	AB
C516	VCKYCY1HB472KY	X	4700p	50V	Ceramic	AA
C517	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA

Ref. No.	Part No.	★	Description	Code
C518	VCQYTA2AA473J+	X	0.047 100V Mylar	AB
C522	VCFYFA1HA334J+	X	0.33 50V Mylar	AB
C523	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C601	VCEA0A1CW477M+	X	470 16V Electrolytic	AB
C602	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C603	VCEA0A1HW225M+	X	2.2 50V Electrolytic	AB
C604	VCKYCY1EB223KY	X	0.022 25V Ceramic	AA
C606	VCKYPA2HB561K+	X	560p 500V Ceramic	AB
C607	VCKYPA1HB472K+	X	4700p 50V Ceramic	AB
C608	RC-KZ0033CEZZ	X	150p 2kV Ceramic	AB
▲⚠ C609	VCFPVC3ZA153H	X	0.015 1500V Metallzed Polypro Film	AB
C611	VCEA0A1EW477M+	X	470 25V Electrolytic	AB
C614	VCEA0A1EW108M+	X	1000 25V Electrolytic	AB
C615	VCFYSB2EB823J	X	0.082 250V Mylar	AB
C616	VCKYPA2HB471K+	X	470p 500V Ceramic	AB
C617	VCEA0A1HW474M+	X	0.47 50V Electrolytic	AB
C622	VCKYPA2HB102K+	X	1000p 500V Ceramic	AB
C623	VCEA4A2EN106M+	X	10 250V Electrolytic	AB
C652	VCEA0A1HW476M+	X	47 50V Electrolytic	AB
C653	VCEA0A1HW106M+	X	10 50V Electrolytic	AB
C674	VCKYCY1HB391KY	X	390p 50V Ceramic	AA
C675	VCEA0A1HW106M+	X	10 50V Electrolytic	AB
C677	RC-FZ0377CEZZ	X	4.7 63V Mylar	AC
▲⚠ C678	VCQPCU2GA563J	X	0.056 400V	AB
C681	VCFPFA2EB334J	X	0.33 250V Metallized Polypro Film	AB
C682	VCKYPA2HB102K+	X	1000p 500V Ceramic	AB
C685	VCQYTA1HM333J+	X	0.033 50V Mylar	AB
C691	VCQYTA1HM682J+	X	6800p 50V Mylar	AB
C704	RC-KZ0029CEZZ+	X	0.1 250V Ceramic	AB
C705	RC-KZ0029CEZZ+	X	0.1 250V Ceramic	AB
C706	RC-EZA243WJZZ	X	470 400V	AM
C707	RC-KZ0031CEZZ+	X	100p 2kV	AB
C708	VCKYPA2HB471K+	X	470p 500V Ceramic	AB
C709	RC-KZ0226CEZZ+	X	560P 2kV Ceramic	AB
C710	VCFPVC3CA562H	X	5600p 1.2kV Metallized Polypro Film	AB
C711	VCQYTA1HM473J+	X	0.047 50V Mylar	AA
C712	RC-KZ0226CEZZ+	X	560p 2kV	AB
C713	VCQPPC2JB333K	X	0.033 630V	AB
C715	VCEA0A1HW336M+	X	33 50V Electrolytic	AB
C716	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA
C717	VCEA0A1HW226M+	X	22 50V Electrolytic	AB
⚠ C718	RC-KZ018SCEZZ	X	1000p AC250V	AB
⚠ C719	RC-KZ018SCEZZ	X	1000p AC250V	AB
C722	VCQYTA1HM103J+	X	0.01 50V Mylar	AB
⚠ C723	RC-EZ0724CEZZ	X	100 160V Electrolytic	AC
⚠ C725	RC-EZA064WJZZ	X	220 160V Electrolytic	AD
C726	RC-KZ0226CEZZ+	X	560P 2kV Ceramic	AB
C727	RC-KZ0226CEZZ+	X	560P 2kV Ceramic	AB
C729	VCEA0A1HW106M+	X	10 50V Electrolytic	AB
C730	VCEA4A1VN108M+	X	1000 35V Electrolytic	AC
C731	RC-EZ0385CEZZ+	X	1000 16V Electrolytic	AB
C732	VCKYPA2HB102K+	X	1000p 500V Ceramic	AB
C733	VCKYPA2HB102K+	X	1000p 500V Ceramic	AB
C734	VCKYPA2HB471K+	X	470p 500V Ceramic	AB
C735	VCKYPA2HB471K+	X	470p 500V Ceramic	AB
C739	RC-EZ0385CEZZ+	X	1000 16V Electrolytic	AB
C740	VCKYPA1HF103Z+	X	0.01 50V Ceramic	AA
C741	VCEA4A2AN105M+	X	1 100V Electrolytic	AB
C743	RC-KZ0035CEZZ+	X	220p 2kV	AB
C745	VCKYPA2HB102K+	X	1000p 500V Ceramic	AB
C746	VCKYPA2HB102K+	X	1000p 500V Ceramic	AB
C747	VCEA0A1HW475M+	X	4.7 50V Electrolytic	AB
C749	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C750	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA
C755	VCEA0A1EW476M+	X	47 25V Electrolytic	AB
C801	VCCCCY1HH110JY	X	11p 50V Ceramic	AA
C802	VCKYCY1HB222KY	X	2200p 50V Ceramic	AA
C803	VCEA0A1HW224M+	X	0.22 50V Electrolytic	AB
C804	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C805	VCEA0A0JW108M+	X	1000 6.3V Electrolytic	AB
C806	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C807	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C808	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA

Ref. No.	Part No.	★	Description	Code
C809	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C810	VCEA0A1CW477M+	X	470 16V Electrolytic	AB
C812	VCQYTA1HM104J+	X	0.1 50V Mylar	AB
C901	VCKYCY1HB103KY	X	0.01 50V Ceramic	AA
C902	VCKYCY1HB103KY	X	0.01 50V Ceramic	AA
C903	VCKYCY1HB681KY	X	680p 50V Ceramic	AA
C904	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C905	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C906	VCKYCY1HB681KY	X	680p 50V Ceramic	AA
C907	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C908	VCKYCY1HB103KY	X	0.01 50V Ceramic	AA
C909	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C910	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C911	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C912	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C913	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C914	VCKYCY1HB681KY	X	680p 50V Ceramic	AA
C915	VCKYPA1HF103Z+	X	0.01 50V Ceramic	AA
C916	VCKYCY1HB103KY	X	0.01 50V Ceramic	AA
C917	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C918	VCKYCY1HB681KY	X	680p 50V Ceramic	AA
C919	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C920	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C921	VCKYCY1HB681KY	X	680p 50V Ceramic	AA
C922	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C923	VCEA0A1CW107M+	X	100 16V Electrolytic	AB
C926	VCEA0A1EW476M+	X	47 25V Electrolytic	AB
C928	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C930	VCEA0A1HW475M+	X	4.7 50V Electrolytic	AB
C931	VCKYCY1HB183KY	X	0.018 50V Ceramic	AA
C932	VCKYCY1HB183KY	X	0.018 50V Ceramic	AA
C933	VCEA0A1HW475M+	X	4.7 50V Electrolytic	AB
C934	VCEA0A1EW476M+	X	47 25V Electrolytic	AB
C935	VCEA0A1HW475M+	X	4.7 50V Electrolytic	AB
C936	VCEA0A1HW475M+	X	4.7 50V Electrolytic	AB
C937	VCKYCY1HB103KY	X	0.01 50V Ceramic	AA
C953	VCKYCY1HB681KY	X	680p 50V Ceramic	AA
C956	VCEA0A1CW477M+	X	470 16V Electrolytic	AB
C1434	VCEA0A1EW476M+	X	47 25V Electrolytic	AB
C1437	VCEA0A1EW476M+	X	47 25V Electrolytic	AB
C2001	VCCCCY1HH101JY	X	100p 50V Ceramic	AA
C2002	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA
C2025	VCCCCY1HH101JY	X	100p 50V Ceramic	AA
C2040	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C2041	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C2043	VCCCCY1HH331JY	X	330p 50V Ceramic	AB
C2044	VCCCCY1HH100DY	X	10p 50V Ceramic	AA
C2046	VCEA0A1EW476M+	X	47 25V Electrolytic	AB
C2060	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C2061	VCCCCY1HH101JY	X	100p 50V Ceramic	AA
C2062	VCEA0A1CW107M+	X	100 16V Electrolytic	AB
C2063	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C2064	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C2201	VCKYCY1HB681KY	X	680p 50V Ceramic	AA
C2202	VCCCCY1HH330JY	X	33p 50V Ceramic	AA
C2601	VCEA0A1EW476M+	X	47 25V Electrolytic	AB
C2602	VCCCCY1HH101JY	X	100p 50V Ceramic	AA
C3001	VCEA0A1HW475M+	X	4.7 50V Electrolytic	AB
C3002	VCKYCY1HB562KY	X	5600p 50V Ceramic	AA
C3003	VCKYCY1EB123KY	X	0.012 25V Ceramic	AA
C3004	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C3005	VCEA0A1HW475M+	X	4.7 50V Electrolytic	AB
C3006	VCEA0A1HW106M+	X	10 50V Electrolytic	AB
C3007	VCEA0A1HW475M+	X	4.7 50V Electrolytic	AB
C3008	VCKYCY1CF104ZY	X	0.1 16V Ceramic	AA
C3009	VCEA0A1CW477M+	X	470 16V Electrolytic	AB
C3010	VCE9GA1HW475M+	X	4.7 (N.P) 50V Electrolytic,	AB
C3011	VCEA0A1HW475M+	X	4.7 50V Electrolytic	AB
C3012	VCEA0A1HW475M+	X	4.7 50V Electrolytic	AB
C3013	VCKYCY1HB272KY	X	2700p 50V Ceramic	AA
C3014	VCKYCY1CB473KY	X	0.047 16V Ceramic	AA
C3015	VCEACA1HC335K+	X	3.3 50V Electrolytic	AB
C3016	VCE9GA1HW475M+	X	4.7 (N.P) 50V Electrolytic,	AB
C3017	VCEACA1CC106K+	X	10 16V Electrolytic	AB

Ref. No.	Part No.	★	Description	Code
C3018	VCEA0A1HW105M+	X	1 50V Electrolytic	AB
C3021	VCEA0A1HW475M+	X	4.7 50V Electrolytic	AB
C3022	VCEA0A1HW475M+	X	4.7 50V Electrolytic	AB
C3025	VCKYCY1CB473KY	X	0.047 16V Ceramic	AA
C3027	VCKYCY1CB473KY	X	0.047 16V Ceramic	AA
C3028	VCKYCY1HB682KY	X	6800p 50V Ceramic	AA
C3029	VCKYCY1HB682KY	X	6800p 50V Ceramic	AA

RESISTORS

RJ1	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ8	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ9	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ10	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ11	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ12	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ14	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ15	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ16	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ17	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ19	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ20	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ21	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ22	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ23	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ24	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ25	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ30	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ40	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ42	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ47	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ48	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ49	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ50	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ55	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ56	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ60	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
RJ61	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
R54	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
R55	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
R56	VRD-RA2BE823JY	X	82k	1/8W	Carbon		AA
R57	VRS-CY1JF473JY	X	47k	1/16W	Metal Oxide		AA
R201	VRS-CY1JF151JY	X	150	1/16W	Metal Oxide		AA
R202	VRS-CY1JF122JY	X	1.2k	1/16W	Metal Oxide		AA
R203	VRS-CY1JF682JY	X	6.8k	1/16W	Metal Oxide		AA
R204	VRS-CY1JF270JY	X	27	1/16W	Metal Oxide		AA
R205	VRS-CY1JF331JY	X	330	1/16W	Metal Oxide		AA
R206	VRD-RA2BE101JY	X	100	1/8W	Carbon		AA
R211	VRS-CY1JF221JY	X	220	1/16W	Metal Oxide		AA
R212	VRS-CY1JF221JY	X	220	1/16W	Metal Oxide		AA
R225	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
R226	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
R227	VRS-CY1JF273JY	X	27k	1/16W	Metal Oxide		AA
R232	VRS-CY1JF471JY	X	470	1/16W	Metal Oxide		AA
R234	VRD-RA2BE271JY	X	270	1/8W	Carbon		AA
R236	VRS-CY1JF332JY	X	3.3k	1/16W	Metal Oxide		AA
R301	VRS-CY1JF222JY	X	2.2k	1/16W	Metal Oxide		AA
R305	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
R306	VRS-CY1JF102JY	X	1k	1/16W	Metal Oxide		AA
R307	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
R308	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
R361	VRD-RA2BE224JY	X	220k	1/8W	Carbon		AA
R362	VRS-CY1JF272JY	X	2.7k	1/16W	Metal Oxide		AA
R363	VRS-CY1JF272JY	X	2.7k	1/16W	Metal Oxide		AA
R364	VRD-RA2BE152JY	X	1.5k	1/8W	Carbon		AA
R365	VRS-CY1JF152JY	X	1.5k	1/16W	Metal Oxide		AA
R368	VRD-RA2BE222JY	X	2.2k	1/8W	Carbon		AA
R369	VRD-RA2BE822JY	X	8.2k	1/8W	Carbon		AA
R371	VRS-CY1JF102JY	X	1k	1/16W	Metal Oxide		AA
R372	VRS-CY1JF223JY	X	22k	1/16W	Metal Oxide		AA
R403	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
R404	VRS-CY1JF683JY	X	68k	1/16W	Metal Oxide		AA
R406	VRS-CY1JF473JY	X	47k	1/16W	Metal Oxide		AA
R407	VRS-CY1JF102JY	X	1k	1/16W	Metal Oxide		AA
R408	VRS-CY1JF683JY	X	68k	1/16W	Metal Oxide		AA
R410	VRS-CY1JF473JY	X	47k	1/16W	Metal Oxide		AA
R411	VRS-CY1JF102JY	X	1k	1/16W	Metal Oxide		AA
R412	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
R413	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
R422	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
R430	VRS-CY1JF391JY	X	390	1/16W	Metal Oxide		AA
R431	VRS-CY1JF331JY	X	330	1/16W	Metal Oxide		AA
R432	VRS-CY1JF102JY	X	1k	1/16W	Metal Oxide		AA
R436	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide		AA
R437	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
R438	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
R439	VRS-CY1JF104JY	X	100k	1/16W	Metal Oxide		AA
R441	VRS-CY1JF472JY	X	4.7k	1/16W	Metal Oxide		AA
R442	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
R444	VRS-CY1JF332JY	X	3.3k	1/16W	Metal Oxide		AA
R445	VRS-CY1JF332JY	X	3.3k	1/16W	Metal Oxide		AA
R446	VRS-CY1JF332JY	X	3.3k	1/16W	Metal Oxide		AA
R447	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
R448	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
R449	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
R450	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
⚠ R451	VRS-RG3AB103J+	X	10k	1W	Metal Oxide		AB
R452	VRD-RM2HD823JY	X	82k	1/2W	Carbon		AA
R453	VRD-RM2HD823JY	X	82k	1/2W	Carbon		AA
R454	VRS-CY1JF471JY	X	470	1/16W	Metal Oxide		AA
R455	VRD-RM2HD473JY	X	47k	1/2W	Carbon		AA
R456	VRS-CY1JF103JY	X	10k	1/16W	Metal Oxide		AA
R460	VRS-CY1JF471JY	X	470	1/16W	Metal Oxide		AA
R461	VRS-CY1JF562JY	X	5.6k	1/16W	Metal Oxide		AA
R462	VRS-CY1JF223JY	X	22k	1/16W	Metal Oxide		AA
R463	VRD-RA2EE680JY	X	68	1/4W	Carbon		AA
R464	VRS-CY1JF683JY	X	68k	1/16W	Metal Oxide		AA
R467	VRS-CY1JF123JY	X	12k	1/16W	Metal Oxide		AA
R471	VRS-CY1JF333JY	X	33k	1/16W	Metal Oxide		AA
R472	VRS-CY1JF273JY	X	27k	1/16W	Metal Oxide		AA
R473	VRS-CY1JF471JY	X	470	1/16W	Metal Oxide		AA
R474	VRS-CY1JF681JY	X	680	1/16W	Metal Oxide		AA
R475	VRS-CY1JF102JY	X	1k	1/16W	Metal Oxide		AA
R476	VRS-CY1JF393JY	X	39k	1/16W	Metal Oxide		AA
R477	VRS-CY1JF182JY	X	1.8k	1/16W	Metal Oxide		AA
R478	VRS-CY1JF151JY	X	150	1/16W	Metal Oxide		AA
R479	VRS-CY1JF473JY	X	47k	1/16W	Metal Oxide		AA
R480	VRS-CY1JF223JY	X	22k	1/16W	Metal Oxide		AA
R481	VRS-CY1JF152JY	X	1.5k	1/16W	Metal Oxide		AA
R482	VRS-CY1JF100JY	X	10	1/16W	Metal Oxide		AA
R483	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
⚠ R501	VRN-RL3ABR47J+	X	0.47	1W	Metal Film		AB
R502	VRN-RA2BK822FY	X	8.2k	1/8W	Metal Film		AB
R503	VRS-CY1JF105JY	X	1M	1/16W	Metal Oxide		AA
R504	VRS-CY1JF154JY	X	150k	1/16W	Metal Oxide		AA
R505	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
R510	VRN-RA2BK103FY	X	10k	1/8W	Metal Film		AB
R511	VRN-RA2BK222FY	X	2.2k	1/8W	Metal Film		AB
R512	VRN-RA2BK272FY	X	2.7k	1/8W	Metal Film		AB
R513	VRD-RM2HD1R0JY	X	1	1/2W	Carbon		AA
R517	VRS-CY1JF104JY	X	100k	1/16W	Metal Oxide		AA
R518	VRS-CY1JF102JY	X	1k	1/16W	Metal Oxide		AA
R521	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
⚠ R523	VRN-RL3DB1R0J+	X	1	2W	Metal Film		AB
⚠ R524	VRS-RG3AB391J+	X	390	1W	Metal Oxide		AB
R601	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
R603	VRD-RA2BE472JY	X	4.7k	1/8W	Carbon		AA
⚠ R604	VRS-KA3NG562J	X	5.6k	7W	Metal Oxide		AB
R605	VRD-RM2HD331JY	X	330	1/2W	Carbon		AA
R606	VRD-RM2HD331JY	X	330	1/2W	Carbon		AA
R609	VRS-RG3AB562J+	X	5.6k	1W	Metal Oxide		AB
R610	VRD-RM2HD220JY	X	22	1/2W	Carbon		AA
R612	VRS-CY1JF154JY	X	150k	1/16W	Metal Oxide		AA
R613	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
R614	VRS-CY1JF562JY	X	5.6k	1/16W	Metal Oxide		AA
⚠ R615	VRS-KA3NG3R3K	X	3.3	7W	Metal Oxide		AB
R618	VRS-CY1JF101JY	X	100	1/16W	Metal Oxide		AA
⚠ R621	VRN-RL3AB3R3J+	X	3.3	1W	Metal Film		AB
⚠ R623	VRN-RL3AB4R7J+	X	4.7	1W	Metal Film		AB
⚠ R624	VRS-RG3DB332J+	X	3.3k	2W	Metal Oxide		AB
R625	VRD-RA2BE102JY	X	1k	1/8W	Carbon		AA
⚠ R627	VRN-RL3ABR47J+	X	0.47	1W	Metal Film		AB

Ref. No.	Part No.	★	Description	Code
⚠ R628	VRN-RL3ABR47J+	X	0.47 1W Metal Film	AB
▲⚠ R651	VRS-RG2HC270J+	X	27 1/2W Metal Oxide	AB
▲⚠ R652	VRD-RA2EE103GY	X	10k 1/4W Carbon	AA
▲⚠ R653	VRD-RA2EE562GY	X	5.6k 1/4W Carbon	AA
⚠ R658	VRS-RG3LB333J+	X	33k 3W Metal Oxide	AB
R663	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R670	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
R684	VRD-RA2BE472JY	X	4.7k 1/8W Carbon	AA
R685	VRD-RA2BE822JY	X	8.2k 1/8W Carbon	AA
R686	VRD-RA2EE332JY	X	3.3k 1/4W Carbon	AA
R687	VRD-RA2BE103JY	X	10k 1/8W Carbon	AA
⚠ R688	VRN-RL3DB3R3J+	X	3.3 2W Metal Film	AB
R689	VRD-RM2HD824JY	X	820k 1/2W Carbon	AA
⚠ R690	VRS-RG3LB471J+	X	470 3W Metal Oxide	AB
R691	VRS-CY1JF394JY	X	390k 1/16W Metal Oxide	AA
R692	VRS-CY1JF223JY	X	22k 1/16W Metal Oxide	AA
R693	VRS-CY1JF683JY	X	68k 1/16W Metal Oxide	AA
R694	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R695	VRS-CY1JF683JY	X	68k 1/16W Metal Oxide	AA
R696	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
R697	VRS-CY1JF684JY	X	680k 1/16W Metal Oxide	AA
R698	VRS-CY1JF475JY	X	4.7M 1/16W Metal Oxide	AA
R709	VRD-RM2HD270JY	X	27 1/2W Carbon	AA
R710	VRS-CY1JF334JY	X	330k 1/16W Metal Oxide	AA
R711	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R712	VRD-RM2HD102JY	X	1k 1/2W Carbon	AA
R713	VRS-CY1JF333JY	X	33k 1/16W Metal Oxide	AA
R715	VRN-RL3DBR12J+	X	0.12 2W Metal Film	AB
R716	VRS-RG2HC152J+	X	1.5k 1/2W Metal Oxide	AB
R717	VRN-RL3DBR12J+	X	0.12 2W Metal Film	AB
R718	VRS-CY1JF333JY	X	33k 1/16W Metal Oxide	AA
R722	VRD-RM2HD103JY	X	10k 1/2W Carbon	AA
R723	VRD-RM2HD471JY	X	470 1/2W Carbon	AA
R724	VRS-KT3LB473J	X	47k 3W Metal Oxide	AB
R725	VRD-RM2HD102JY	X	1k 1/2W Carbon	AA
⚠ R727	RR-HZ0014GEZZY	X	12M 1W	AB
R730	VRD-RA2BE100JY	X	10 1/8W Carbon	AA
R731	VRD-RA2BE101JY	X	100 1/8W Carbon	AA
R734	VRD-RM2HD124JY	X	120k 1/2W Carbon	AA
⚠ R737	VRN-RL3LBR56J+	X	0.56 3W Metal Film	AB
R742	VRD-RA2BE222JY	X	2.2k 1/8W Carbon	AA
R743	VRD-RM2HD470JY	X	47 1/2W Carbon	AA
R751	VRD-RA2BE473JY	X	47k 1/8W Carbon	AA
R752	VRD-RA2BE392JY	X	3.9k 1/8W Carbon	AA
R753	VRS-CY1JF222JY	X	2.2k 1/16W Metal Oxide	AA
R754	VRS-CY1JF222JY	X	2.2k 1/16W Metal Oxide	AA
R755	VRS-CY1JF473JY	X	47k 1/16W Metal Oxide	AA
R756	VRD-RA2BE152JY	X	1.5k 1/8W Carbon	AA
⚠ R757	VRN-RL3DB4R7J+	X	4.7 2W Metal Film	AB
R759	VRS-CY1JF103JY	X	10k 1/16W Metal Oxide	AA
R761	VRS-CY1JF332JY	X	3.3k 1/16W Metal Oxide	AA
R762	VRD-RA2BE103JY	X	10k 1/8W Carbon	AA
R764	VRD-RM2HD562JY	X	5.6k 1/2W Carbon	AA
R767	VRD-RM2HD220JY	X	22 1/2W Carbon	AA
R768	VRD-RA2BE473JY	X	47k 1/8W Carbon	AA
R770	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R771	VRS-CY1JF103JY	X	10k 1/16W Metal Oxide	AA
R772	VRS-CY1JF103JY	X	10k 1/16W Metal Oxide	AA
R773	VRD-RM2HD823JY	X	82k 1/2W Carbon	AA
R774	VRD-RA2BE272JY	X	2.7k 1/8W Carbon	AA
R775	VRS-CY1JF332JY	X	3.3k 1/16W Metal Oxide	AA
R776	VRS-CY1JF332JY	X	3.3k 1/16W Metal Oxide	AA
R801	VRS-CY1JF333JY	X	33k 1/16W Metal Oxide	AA
R802	VRS-CY1JF471JY	X	470 1/16W Metal Oxide	AA
R803	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
R805	VRS-CY1JF682JY	X	6.8k 1/16W Metal Oxide	AA
R806	VRS-CY1JF681JY	X	680 1/16W Metal Oxide	AA
R807	VRS-CY1JF681JY	X	680 1/16W Metal Oxide	AA
R808	VRS-CY1JF681JY	X	680 1/16W Metal Oxide	AA
R810	VRS-CY1JF472JY	X	4.7k 1/16W Metal Oxide	AA
R903	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R904	VRS-CY1JF683JY	X	68k 1/16W Metal Oxide	AA
R905	VRS-CY1JF223JY	X	22k 1/16W Metal Oxide	AA
R906	VRD-RA2BE332JY	X	3.3k 1/8W Carbon	AA
R907	VRS-CY1JF152JY	X	1.5k 1/16W Metal Oxide	AA
R908	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R910	VRD-RA2BE102JY	X	1k 1/8W Carbon	AA
R911	VRS-CY1JF683JY	X	68k 1/16W Metal Oxide	AA
R912	VRS-CY1JF223JY	X	22k 1/16W Metal Oxide	AA
R913	VRS-CY1JF332JY	X	3.3k 1/16W Metal Oxide	AA
R914	VRS-CY1JF152JY	X	1.5k 1/16W Metal Oxide	AA
R915	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R916	VRS-CY1JF683JY	X	68k 1/16W Metal Oxide	AA
R917	VRS-CY1JF332JY	X	3.3k 1/16W Metal Oxide	AA
R918	VRS-CY1JF332JY	X	3.3k 1/16W Metal Oxide	AA
R922	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R923	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R924	VRS-CY1JF750JY	X	75 1/16W Metal Oxide	AA
R925	VRS-CY1JF750JY	X	75 1/16W Metal Oxide	AA
R926	VRS-CY1JF680JY	X	68 1/16W Metal Oxide	AA
R927	VRS-CY1JF750JY	X	75 1/16W Metal Oxide	AA
R929	VRS-CY1JF473JY	X	47k 1/16W Metal Oxide	AA
R930	VRS-CY1JF473JY	X	47k 1/16W Metal Oxide	AA
R931	VRS-CY1JF750JY	X	75 1/16W Metal Oxide	AA
R932	VRS-CY1JF473JY	X	47k 1/16W Metal Oxide	AA
R933	VRS-CY1JF473JY	X	47k 1/16W Metal Oxide	AA
R934	VRS-CY1JF103JY	X	10k 1/16W Metal Oxide	AA
R935	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R936	VRS-CY1JF223JY	X	22k 1/16W Metal Oxide	AA
R937	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R938	VRS-CY1JF223JY	X	22k 1/16W Metal Oxide	AA
R939	VRS-CY1JF333JY	X	33k 1/16W Metal Oxide	AA
R940	VRS-CY1JF8R2JY	X	8.2 1/16W Metal Oxide	AA
R941	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R942	VRS-CY1JF223JY	X	22k 1/16W Metal Oxide	AA
R943	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R944	VRS-CY1JF223JY	X	22k 1/16W Metal Oxide	AA
R945	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R946	VRS-CY1JF103JY	X	10k 1/16W Metal Oxide	AA
R947	VRS-CY1JF223JY	X	22k 1/16W Metal Oxide	AA
R948	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R949	VRS-CY1JF223JY	X	22k 1/16W Metal Oxide	AA
R950	VRS-CY1JF750JY	X	75 1/16W Metal Oxide	AA
R951	VRD-RA2BE680JY	X	68 1/8W Carbon	AA
R952	VRS-CY1JF333JY	X	33k 1/16W Metal Oxide	AA
R953	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
R954	VRS-CY1JF221JY	X	220 1/16W Metal Oxide	AA
R955	VRS-CY1JF221JY	X	220 1/16W Metal Oxide	AA
R957	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R958	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R959	VRS-CY1JF103JY	X	10k 1/16W Metal Oxide	AA
R960	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R961	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R962	VRS-CY1JF332FY	X	3.3k 1/16W Metal Oxide	AA
R963	VRD-RA2BE101JY	X	100 1/8W Carbon	AA
R964	VRS-CY1JF152JY	X	1.5k 1/16W Metal Oxide	AA
R967	VRS-CY1JF682JY	X	6.8k 1/16W Metal Oxide	AA
R968	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R969	VRS-CY1JF472FY	X	4.7k 1/16W Metal Oxide	AA
R970	VRD-RA2BE6R8JY	X	6.8 1/8W Carbon	AA
R971	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R972	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R973	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
R974	VRS-CY1JF103JY	X	10k 1/16W Metal Oxide	AA
R975	VRS-CY1JF333JY	X	33k 1/16W Metal Oxide	AA
R982	VRS-CY1JF750JY	X	75 1/16W Metal Oxide	AA
R983	VRS-CY1JF473JY	X	47k 1/16W Metal Oxide	AA
R984	VRS-CY1JF473JY	X	47k 1/16W Metal Oxide	AA
⚠ R1420	VRN-RL3LB2R7J+	X	2.7 3W Metal Film	AB
R2001	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R2004	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R2008	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R2010	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R2013	VRS-CY1JF682JY	X	6.8k 1/16W Metal Oxide	AA
R2021	VRS-CY1JF334JY	X	330k 1/16W Metal Oxide	AA
R2024	VRS-CY1JF472JY	X	4.7k 1/16W Metal Oxide	AA
R2025	VRS-CY1JF472JY	X	4.7k 1/16W Metal Oxide	AA
R2026	VRS-CY1JF472JY	X	4.7k 1/16W Metal Oxide	AA
R2027	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R2028	VRD-RA2BE102JY	X	1k 1/8W Carbon	AA
R2031	VRS-CY1JF222JY	X	2.2k 1/16W Metal Oxide	AA
R2033	VRS-CY1JF334JY	X	330k 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R2040	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R2041	VRS-CY1JF333JY	X	33k 1/16W Metal Oxide	AA
R2042	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R2043	VRS-CY1JF333JY	X	33k 1/16W Metal Oxide	AA
R2044	VRS-CY1JF153JY	X	15k 1/16W Metal Oxide	AA
R2046	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R2047	VRS-CY1JF221JY	X	220 1/16W Metal Oxide	AA
R2048	VRS-CY1JF562JY	X	5.6k 1/16W Metal Oxide	AA
R2051	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R2060	VRS-CY1JF221JY	X	220 1/16W Metal Oxide	AA
R2061	VRS-CY1JF562JY	X	5.6k 1/16W Metal Oxide	AA
R2062	VRS-CY1JF223JY	X	22k 1/16W Metal Oxide	AA
R2063	VRS-CY1JF222JY	X	2.2k 1/16W Metal Oxide	AA
R2064	VRS-CY1JF332JY	X	3.3k 1/16W Metal Oxide	AA
R2073	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
R2084	VRS-CY1JF103JY	X	10k 1/16W Metal Oxide	AA
R2086	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R2090	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R2092	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R2101	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R2102	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R2201	VRS-CY1JF222JY	X	2.2k 1/16W Metal Oxide	AA
R2202	VRS-CY1JF103JY	X	10k 1/16W Metal Oxide	AA
R2203	VRS-CY1JF473JY	X	47k 1/16W Metal Oxide	AA
R2211	VRS-CY1JF222JY	X	2.2k 1/16W Metal Oxide	AA
R2212	VRS-CY1JF682JY	X	6.8k 1/16W Metal Oxide	AA
R2213	VRS-CY1JF333JY	X	33k 1/16W Metal Oxide	AA
R2401	VRD-RA2BE101JY	X	100 1/8W Carbon	AA
R2402	VRD-RA2BE101JY	X	100 1/8W Carbon	AA
R2403	VRD-RA2BE101JY	X	100 1/8W Carbon	AA
R2404	VRD-RA2BE101JY	X	100 1/8W Carbon	AA
R2501	VRS-CY1JF183JY	X	18k 1/16W Metal Oxide	AA
R2502	VRS-CY1JF183JY	X	18k 1/16W Metal Oxide	AA
R2503	VRS-CY1JF103JY	X	10k 1/16W Metal Oxide	AA
R2504	VRS-CY1JF103JY	X	10k 1/16W Metal Oxide	AA
R2505	VRD-RA2BE822JY	X	8.2k 1/8W Carbon	AA
R2506	VRD-RA2BE822JY	X	8.2k 1/8W Carbon	AA
R2507	VRD-RA2BE183JY	X	18k 1/8W Carbon	AA
R2508	VRD-RA2BE183JY	X	18k 1/8W Carbon	AA
R2509	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
R2601	VRD-RA2BE100JY	X	10 1/8W Carbon	AA
R2603	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
R2605	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
R2606	VRS-CY1JF000JY	X	0 1/16W Metal Oxide	AA
R3001	VRS-CY1JF221JY	X	220 1/16W Metal Oxide	AA
R3002	VRS-CY1JF221JY	X	220 1/16W Metal Oxide	AA
R3003	VRS-CY1JF105JY	X	1M 1/16W Metal Oxide	AA
R3004	VRS-CY1JF104JY	X	100k 1/16W Metal Oxide	AA
R3005	VRS-CY1JF623JY	X	62k 1/16W Metal Oxide	AA
R3007	VRS-CY1JF332JY	X	3.3k 1/16W Metal Oxide	AA
R3008	VRS-CY1JF302JY	X	3k 1/16W Metal Oxide	AA
R3010	VRS-CY1JF392JY	X	3.9k 1/16W Metal Oxide	AA
R3017	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R3018	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R3019	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R3020	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R3021	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R3023	VRS-CY1JF101JY	X	100 1/16W Metal Oxide	AA
R3024	VRD-RA2BE102JY	X	1k 1/8W Carbon	AA

SWITCHES

S2501	QSW-KA003WJZZ+	X	Switch, POWER	AB
S2502	QSW-KA003WJZZ+	X	Switch, MENU	AB
S2503	QSW-KA003WJZZ+	X	Switch, VOL-DOWN	AB
S2504	QSW-KA003WJZZ+	X	Switch, VOL-UP	AB
S2505	QSW-KA003WJZZ+	X	Switch, CH-DOWN	AB
S2506	QSW-KA003WJZZ+	X	Switch, CH-UP	AB

BALUNES

FB601	RBLN-0047CEZZY	X	Balun	AB
FB706	RBLN-0037CEZZY	X	Balun	AB
FB2001	RBLN-0037CEZZY	X	Balun	AB

MISCELLANEOUS PARTS

CF2040	RCRM-0003CEZZ+	X	Ceramic Vibrator	AC
J904	QJAKGA023WJZZ	X	Jack, Front AV IN	AC
J921	QSOCD0456CEZZ	X	Socket, S-Video	AC
J1401	QTANJ1101SEZZ	X	Terminal, AV IN/OUT	AF
P361	QPLGN0461CEZZA	X	Plug, 4Pin(S1-4)	AB
P401	QPLGN0861CEZZA	X	Plug, 8Pin(CJ)	AB
P605	QPLGN0160FJZZ	X	Plug, 5Pin(K1-5)	AB
P621	QPLGN0761CEZZA	X	Plug, 7Pin(N)	AB
P651	QPLGN0361CEZZA	X	Plug, 3Pin	AB
P702	QPLGN0157FJZZ	X	Plug, 2Pin(QA)	AB
P707	QPLGN0241CEZZ	X	Plug, 2Pin(QB)	AB
P2401	QPLGN0661CEZZA	X	Plug, 6Pin	AB
RDA361	PRDAR0258PEFW	X	Heat Sink for IC361	AC
RDA501	PRDARA039WJFW	X	Heat Sink for IC501	AD
RDA601	PRDARA041WJFW	X	Heat Sink for Q602	AD
RDA671	PRDARA057WJFW	X	Heat Sink for Q673	AC
⚠ RDA702	PRDAR0279PEFW	X	Heat Sink for Q702	AB
RDA750	PRDAR5072CEFW	X	Heat Sink for IC751	AB
RDA1403	PRDAR5072CEFW	X	Heat Sink for IC1403	AB
RMC2601	RRMCU0222CEZZ	X	Remote Receiver	AD

DUNTKA527WEW7
PWB-B CRT UNIT

INTEGRATED CIRCUIT

⚠ IC850	VHiTDA6103Q-1	X	TDA6103Q/N3	AG

TRANSISTORS

Q850	VS2SA1266-Y-1+	X	2SA1266-Y	AB
Q851	VS2SC3198-G-1+	X	2SC3198-G	AB
Q1504	VS2SC3198-G-1+	X	2SC3198-G	AB
Q1505	VS2SA1266-Y-1+	X	2SA1266-Y	AB
Q1506	VS2SA1964E/-1	X	2SA1964E	AC
Q1507	VS2SC5248E/-1	X	2SC5248E	AC

DIODES

D850	RH-DX0220CEZZY	X	DX0220CE	AB
D851	RH-DX0220CEZZY	X	DX0220CE	AB
D852	RH-DX0220CEZZY	X	DX0220CE	AB
D853	RH-EX0647GEZZY	X	Zener Diode,15V	AB
D854	VHD1SS119//-1Y	X	1SS119	AA
D855	VHD1SS119//-1Y	X	1SS119	AA
D862	VHD1SS119//-1Y	X	1SS119	AA
D1502	VHD1SS119//-1Y	X	1SS119	AA
D1503	VHD1SS119//-1Y	X	1SS119	AA
D1506	RH-DX0487CEZZY	X	DX0487CE	AB
D1507	RH-DX0487CEZZY	X	DX0487CE	AB
D1510	VHD1SS119//-1Y	X	1SS119	AA

CAPACITORS

C850	VCFYSB2EB224K	X	0.22	250V		AB
C851	RC-KZ018JCEZZ	X	0.01	AC250V		AB
C852	VCEA0A1CW107M+	X	100	16V	Electrolytic	AB
C853	VCFYFA1HA224J+	X	0.22	50V	Mylar	AB
C854	VCEA0A1CW227M+	X	220	16V	Electrolytic	AB
C855	VCEA0A2EW106M+	X	10	250V	Electrolytic	AB
C856	VCEA0A1HW226M+	X	22	50V	Electrolytic	AB
C1501	VCEA0A1CW476M+	X	47	16V	Electrolytic	AB
C1506	VCKYPA1HF103Z+	X	0.01	50V	Ceramic	AA
C1508	VCKYPA2HB472K+	X	4700p	500V	Ceramic	AB
C1509	VCKYPA1HB472K+	X	4700p	50V	Ceramic	AB
C1510	VCKYPA1HF103Z+	X	0.01	50V	Ceramic	AA
C1511	VCKYPA1HF103Z+	X	0.01	50V	Ceramic	AA
C1515	VCEA0A1HW476M+	X	47	50V	Electrolytic	AB
C1516	VCEA0A1HW476M+	X	47	50V	Electrolytic	AB
C1517	VCEA0A2AW106M+	X	10	100V	Electrolytic	AB
C1518	VCCSPA2HL560K+	X	56p	500V	Ceramic	AB
C1519	VCEA0A2CW106M+	X	10	160V	Electrolytic	AB

RESISTORS

⚠ R850	VRS-SV2HC152J	X	1.5k	1/2W	Metal Oxide	AB
⚠ R851	VRS-SV2HC152J	X	1.5k	1/2W	Metal Oxide	AB
⚠ R852	VRS-SV2HC152J	X	1.5k	1/2W	Metal Oxide	AB
⚠ R853	VRS-SV2HC272J	X	2.7k	1/2W	Metal Oxide	AB

Ref. No.	Part No.	★	Description			Code
⚠ R854	VRS-SV2HC272J	X	2.7k	1/2W	Metal Oxide	AB
⚠ R855	VRS-SV2HC272J	X	2.7k	1/2W	Metal Oxide	AB
R856	VRD-RM2HD104JY	X	100k	1/2W	Carbon	AA
R857	VRD-RM2HD104JY	X	100k	1/2W	Carbon	AA
R858	VRD-RM2HD104JY	X	100k	1/2W	Carbon	AA
R861	VRD-RM2HD104JY	X	100k	1/2W	Carbon	AA
R862	VRC-MA2HG152KY	X	1.5k	1/2W	Solid	AB
R863	VRC-MA2HG152KY	X	1.5k	1/2W	Solid	AB
R864	VRC-MA2HG152KY	X	1.5k	1/2W	Solid	AB
⚠ R867	VRS-SV2HC392J	X	3.9k	1/2W	Metal Oxide	AB
⚠ R868	VRS-SV2HC682J	X	6.8k	1/2W	Metal Oxide	AB
R869	VRD-RA2BE103JY	X	10k	1/8W	Carbon	AA
R870	VRD-RA2BE223JY	X	22k	1/8W	Carbon	AA
R871	VRD-RA2BE472JY	X	4.7k	1/8W	Carbon	AA
R872	VRD-RA2EE680JY	X	68	1/4W	Carbon	AA
R873	VRD-RM2HD224JY	X	220k	1/2W	Carbon	AA
R874	VRD-RM2HD104JY	X	100k	1/2W	Carbon	AA
R875	VRD-RM2HD104JY	X	100k	1/2W	Carbon	AA
R876	VRD-RM2HD104JY	X	100k	1/2W	Carbon	AA
R877	VRD-RA2BE103JY	X	10k	1/8W	Carbon	AA
⚠ R878	VRS-SV2HC120J	X	12	1/2W	Metal Oxide	AB
R1511	VRD-RA2BE101JY	X	100	1/8W	Carbon	AA
⚠ R1513	VRS-VV3DB561J	X	560	2W	Metal Oxide	AB
R1514	VRD-RA2BE100JY	X	10	1/8W	Carbon	AA
R1515	VRD-RA2BE820JY	X	82	1/8W	Carbon	AA
R1516	VRD-RA2BE820JY	X	82	1/8W	Carbon	AA
R1517	VRD-RA2BE122JY	X	1.2k	1/8W	Carbon	AA
R1518	VRD-RA2BE683JY	X	68k	1/8W	Carbon	AA
R1519	VRD-RA2BE123JY	X	12k	1/8W	Carbon	AA
R1520	VRD-RA2BE683JY	X	68k	1/8W	Carbon	AA
R1521	VRD-RA2BE122JY	X	1.2k	1/8W	Carbon	AA
R1525	VRD-RA2EE560JY	X	56	1/4W	Carbon	AA
R1526	VRD-RA2EE560JY	X	56	1/4W	Carbon	AA
R1527	VRD-RM2HD1R5JY	X	1.5	1/2W	Carbon	AA
R1528	VRD-RM2HD1R5JY	X	1.5	1/2W	Carbon	AA
⚠ R1529	VRS-VV3DB221J	X	220	2W	Metal Oxide	AB
R1530	VRD-RA2BE122JY	X	1.2k	1/8W	Carbon	AA

MISCELLANEOUS PARTS

FB1501	RBLN-0020CEZZ+	X	Balun	AB
P854	QPLGN0741CEZZ	X	Plug, 7Pin(N)	AB
P860	QPLGN0841CEZZ	X	Plug, 8Pin(CJ)	AB
⚠ P861	QPLGN0241CEZZ	X	Plug, 2Pin(PU1-2)	AB
RDA850	PRDAR0248PEFW	X	Heat Sink for IC850	AB
RDA1506	PRDAR5072CEFW	X	Heat Sink for Q1506	AB
RDA1507	PRDAR5072CEFW	X	Heat Sink for Q1507	AB
SC850	QSOCV1011CEZZ	X	CRT Socket, 12Pin	AC

DUNTKB573WEV0
PWB-C 3-LINE Y/C UNIT

INTEGRATED CIRCUIT

IC1401	VHiTC90A53F-1Y	X	TC90A53F	AP

TRANSISTORS

Q1401	VS2SD601AR/-1Y	X	2SD601AR	AB
Q1402	VS2SD601AR/-1Y	X	2SD601AR	AB
Q1403	VS2SB709AR/-1Y	X	2SB709AR	AB
Q1404	VS2SD601AR/-1Y	X	2SD601AR	AB
Q1406	VS2SB709AR/-1Y	X	2SB709AR	AB
Q1407	VS2SD601AR/-1Y	X	2SD601AR	AB
Q1408	VS2SB709AR/-1Y	X	2SB709AR	AB

COILS

L1401	VP-XF100K0000Y	X	Peaking	10µH	AB
L1402	VP-XF100K0000Y	X	Peaking	10µH	AB
L1406	VP-XF220K0000Y	X	Peaking	22µH	AB
L1407	VP-XF220K0000Y	X	Peaking	22µH	AB
L1408	VP-XF100K0000Y	X	Peaking	10µH	AB
L1410	VP-XF100K0000Y	X	Peaking	10µH	AB
L1414	VP-XF330K0000Y	X	Peaking	33µH	AB
L1417	VP-XF220K0000Y	X	Peaking	22µH	AB

CAPACITORS

C1412	VCEA0A1HW106M+X	X	10	50V	Electrolytic	AB
C1413	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA
C1414	VCCCCY1HH3R0CYX	X	3p	50V	Ceramic	AA
C1415	VCE9GA1CW106M+X	X	10 (N.P)	16V	Electrolytic,	AB
C1416	VCEA0A1CW477M+X	X	470	16V	Electrolytic	AB
C1417	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C1420	VCCCCY1HH270JY	X	27p	50V	Ceramic	AA
C1421	VCCCCY1HH120JY	X	12p	50V	Ceramic	AA
C1422	VCCCCY1HH120JY	X	12p	50V	Ceramic	AA
C1423	VCCCCY1HH3R0CYX	X	3p	50V	Ceramic	AA
C1424	VCCCCY1HH270JY	X	27p	50V	Ceramic	AA
C1425	VCCCCY1HH100DYX	X	10p	50V	Ceramic	AA
C1428	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA
C1435	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA
C1436	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C1439	VCE9GA1CW106M+X	X	10 (N.P)	16V	Electrolytic,	AB
C1440	VCEA0A1HW106M+X	X	10	50V	Electrolytic	AB
C1441	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA
C1442	VCFYFA1HA474J+	X	0.47	50V	Mylar	AB
C1443	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA
C1444	VCKYCY1HB472KY	X	4700p	50V	Ceramic	AA
C1445	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA
C1446	VCCCCY1HH181JY	X	180p	50V	Ceramic	AB
C1447	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA
C1448	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C1449	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C1451	VCEA0A1CW107M+X	X	100	16V	Electrolytic	AB
C1452	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C1453	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA
C1454	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA
C1455	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA
C1456	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C1457	VCEA0A1HW106M+X	X	10	50V	Electrolytic	AB
C1458	VCEA0A1HW106M+X	X	10	50V	Electrolytic	AB
C1460	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA
C1470	VCCCCY1HH270JY	X	27p	50V	Ceramic	AA
C1474	VCCCCY1HH150JY	X	15p	50V	Ceramic	AA

RESISTORS

RJ1	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide	AA
RJ2	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide	AA
RJ3	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide	AA
RJ4	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide	AA
RJ5	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide	AA
RJ6	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide	AA
RJ7	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide	AA
R1402	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide	AA
R1405	VRS-CY1JF361JY	X	360	1/16W	Metal Oxide	AA
R1406	VRS-CY1JF102JY	X	1k	1/16W	Metal Oxide	AA
R1407	VRS-CY1JF102JY	X	1k	1/16W	Metal Oxide	AA
R1410	VRS-CY1JF473JY	X	47k	1/16W	Metal Oxide	AA
R1411	VRS-CY1JF223JY	X	22k	1/16W	Metal Oxide	AA
R1412	VRS-CY1JF102JY	X	1k	1/16W	Metal Oxide	AA
R1413	VRS-CY1JF122JY	X	1.2k	1/16W	Metal Oxide	AA
R1414	VRS-CY1JF331JY	X	330	1/16W	Metal Oxide	AA
R1415	VRS-CY1JF391JY	X	390	1/16W	Metal Oxide	AA
R1416	VRS-CY1JF102JY	X	1k	1/16W	Metal Oxide	AA
R1421	VRS-CY1JF471FY	X	470	1/16W	Metal Oxide	AA
R1423	VRS-CY1JF152FY	X	1.5k	1/16W	Metal Oxide	AA
R1426	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide	AA
R1428	VRS-CY1JF332JY	X	3.3k	1/16W	Metal Oxide	AA
R1429	VRS-CY1JF222JY	X	2.2k	1/16W	Metal Oxide	AA
R1430	VRS-CY1JF473JY	X	47k	1/16W	Metal Oxide	AA
R1431	VRS-CY1JF223JY	X	22k	1/16W	Metal Oxide	AA
R1432	VRS-CY1JF102JY	X	1k	1/16W	Metal Oxide	AA
R1433	VRS-CY1JF122JY	X	1.2k	1/16W	Metal Oxide	AA
R1434	VRS-CY1JF331JY	X	330	1/16W	Metal Oxide	AA
R1435	VRS-CY1JF102JY	X	1k	1/16W	Metal Oxide	AA
R1436	VRS-CY1JF331JY	X	330	1/16W	Metal Oxide	AA
R1438	VRS-CY1JF222JY	X	2.2k	1/16W	Metal Oxide	AA
R1456	VRS-CY1JF564JY	X	560k	1/16W	Metal Oxide	AA
R1457	VRS-CY1JF103JY	X	10k	1/16W	Metal Oxide	AA
R1458	VRD-RA2BE103JY	X	10k	1/8W	Carbon	AA
R1459	VRS-CY1JF821JY	X	820	1/16W	Metal Oxide	AA
R1466	VRS-CY1JF103JY	X	10k	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R1467	VRS-CY1JF682JY	X	6.8k 1/16W Metal Oxide	AA
R1473	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA
R1475	VRS-CY1JF102JY	X	1k 1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

FB1401	RBLN-0061TAZZY	X	Balun	AB
P1401	QPLGZ0810CEZZ	X	Plug, 8Pin	AB

DUNTKC379WEV0
PWB-G POWER UNIT

PACKGED CIRCUITS

⚠ VA1701	RH-VX0048CEZZ	X	Varistor		AB
⚠ PR1701	RMPTP0083CEZZ	X	Packaged Circuit		AG

COIL

⚠ L1701	RCiLF0345CEZZ	X	Coil		AC

CAPACITOR

C1704	RC-FZA022WJZZ	X	0.22	275V		AB

RESISTORS

⚠ R1701	RR-DZ0049CEZZY	X	3.9M	1/2W		AB
R1702	VRS-VV3LB101J	X	100	3W	Metal Oxide	AB
R1703	VRW-KQ41C1R5K	X	1.5	15W	Cement	AB
R1704	VRW-KQ41C1R5K	X	1.5	15W	Cement	AB

MISCELLANEOUS PARTS

⚠ ACC701	QACCZA020WJPZ	X	AC Cord	AC
⚠ F1701	QFS-C5022CEZZ	X	Fuse, T5AL/250V	AC
⚠ FH1701	QFSHD1002CEZZ	X	Fuse Holder	AB
⚠ FH1702	QFSHD1002CEZZ	X	Fuse Holder	AB
P1701	QPLGN0269GEZZ	X	Plug, 2Pin(A1-2)	AB
P1702	QPLGN0460CEZZ	X	Plug, 4Pin(M1-4)	AB
P1703	QPLGN0157FJZZ	X	Plug, 2Pin(QA)	AB
P1704	QPLGN0241CEZZ	X	Plug, 2Pin(QB)	AB
⚠ RY1702	RRLYJ0090CEZZ	X	Relay	AC
	LHLDW1002PEZZ	X	Holder	AB

DUNTKB571WEV1
PWB-S AUDIO UNIT

INTEGRATED CIRCUIT

IC3501	VHiNJW1140G-1Y	X	NJW1140GK1			AM

DIODES

D3501	RH-EX0619GEZZY	X	Zener Diode, 6.2V			AB
D3502	RH-EX0619GEZZY	X	Zener Diode, 6.2V			AB

CAPACITORS

C3501	VCQYTA1HM104J+	X	0.1	50V	Mylar	AB
C3502	VCFYFA1HA334J+	X	0.33	50V	Mylar	AB
C3503	VCKYCY1HB822KY	X	8200p	50V	Ceramic	AA
C3509	VCEA0A1HW105M+X	X	1	50V	Electrolytic	AB
C3510	VCEA0A1HW105M+X	X	1	50V	Electrolytic	AB
C3511	VCEA0A1HW105M+X	X	1	50V	Electrolytic	AB
C3512	VCEA0A1HW105M+X	X	1	50V	Electrolytic	AB
C3513	VCEA0A1HW105M+X	X	1	50V	Electrolytic	AB
C3514	VCEA0A1CW476M+X	X	47	16V	Electrolytic	AB
C3515	VCKYCY1HB103KY	X	0.01	50V	Ceramic	AA
C3531	VCQYTA1HM104J+	X	0.1	50V	Mylar	AB
C3533	VCKYCY1EB223KY	X	0.022	25V	Ceramic	AA
C3539	VCFYFA1HA334J+	X	0.33	50V	Mylar	AB
C3540	VCEA0A1HW105M+X	X	1	50V	Electrolytic	AB
C3541	VCEA0A1HW105M+X	X	1	50V	Electrolytic	AB
C3694	VCE9GA1HW475M+X	X	4.7 (N.P)	50V	Electrolytic,	AB
C3695	VCE9GA1HW475M+X	X	4.7 (N.P)	50V	Electrolytic,	AB

RESISTORS

RJ1	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide	AA
RJ2	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide	AA
RJ4	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide	AA
RJ5	VRS-CY1JF000JY	X	0	1/16W	Metal Oxide	AA
R3501	VRS-CY1JF472JY	X	4.7k	1/16W	Metal Oxide	AA
R3502	VRS-CY1JF221JY	X	220	1/16W	Metal Oxide	AA
R3531	VRS-CY1JF221JY	X	220	1/16W	Metal Oxide	AA
R3532	VRS-CY1JF221JY	X	220	1/16W	Metal Oxide	AA
R3533	VRS-CY1JF221JY	X	220	1/16W	Metal Oxide	AA

MISCELLANEOUS PARTS

P3004	QPLGN0242CEZZ	X	Plug, 2Pin(TP3001-2)	AA
P3006	QPLGZ0610CEZZ	X	Plug, 6Pin	AB
P3007	QPLGZ0610CEZZ	X	Plug, 6Pin	AB

MISCELLANEOUS PARTS

Ref. No.	Part No.	★	Description	Code
SP1	VSP1206PB708A	X	Speaker(L)	AG
SP2	VSP1206PB708A	X	Speaker(R)	AG
	QCNW-B020WJZZ	X	Connecting Cord	AC
	QCNW-B021WJZZ	X	Connecting Cord	AC
	QCNW-B022WJZZ	X	Connecting Cord	AC
	QCNW-C156WJPZ	X	Connecting Cord	AC
	QCNW-C157WJPZ	X	Connecting Cord	AB
	QPLGA0017CEZZ	X	Plug	AC

SUPPLIED ACCESSORIES

	RRMCGA108WJSA	X	Infrared R-C	AT
	TiNS-B123WJZZ	X	Instruction Book	AE

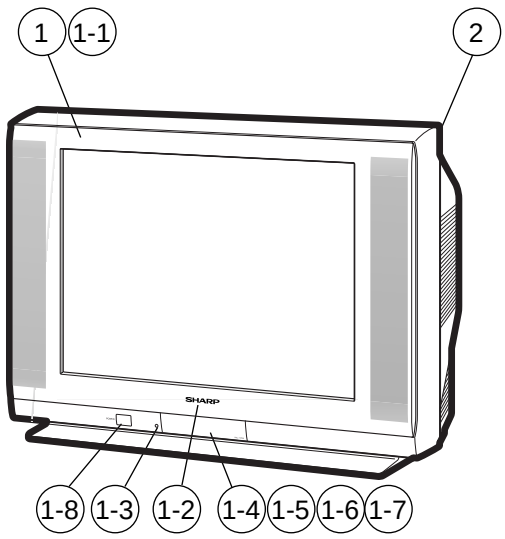
PACKING PARTS
(NOT REPLACEMENT ITEM)

Ref. No.	Part No.	★	Description	Code
	SPAKCB224WJZZ	-	Packing Case	—
	SPAKP0109GJZZ	-	Wrapping Paper	—
	SPAKXA180WJZZ	-	Buffer Material	—
	SSAKA0101GJZZ	-	Polyethylene Bag	—

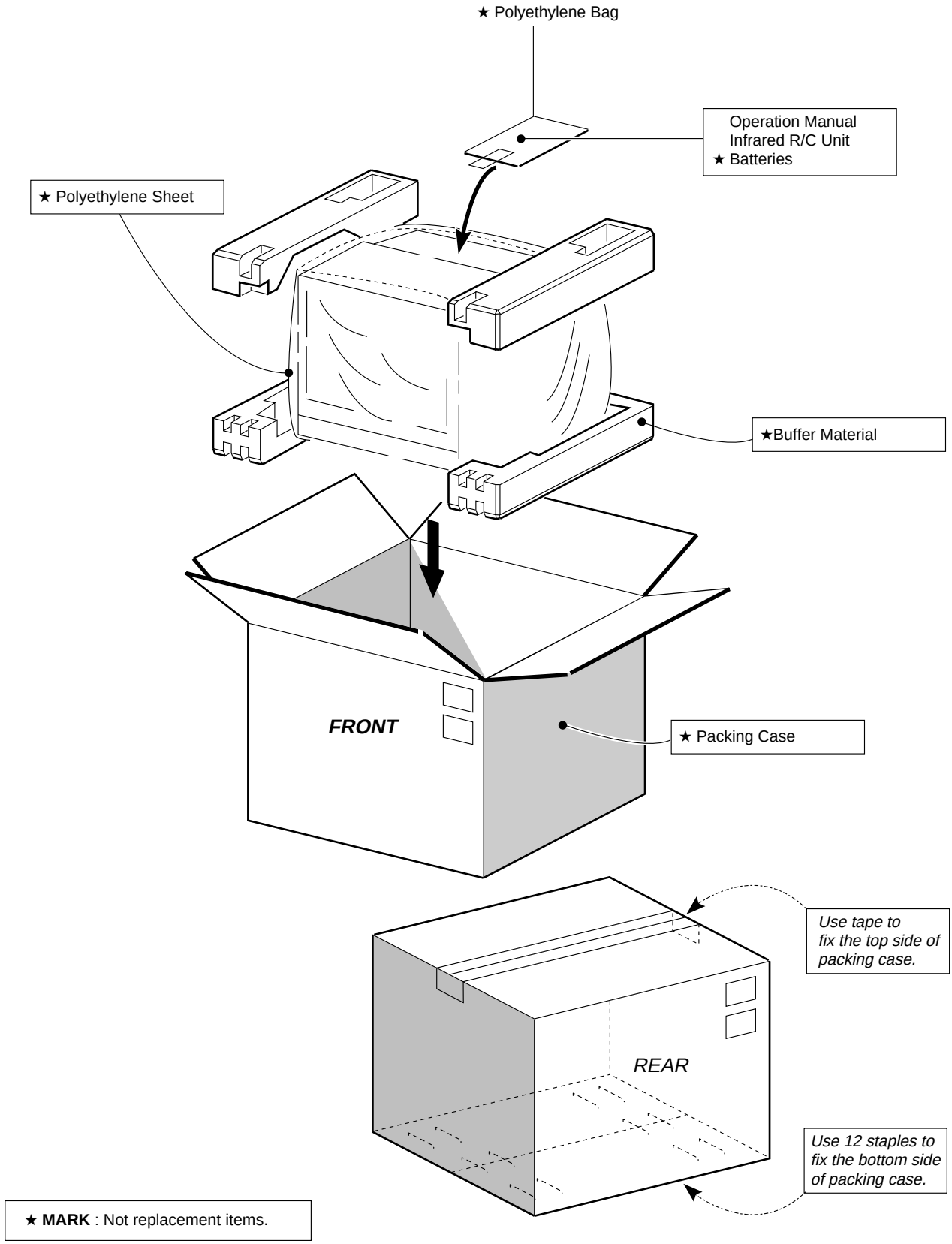
CABINET PARTS

Ref. No.	Part No.	★	Description	Code
1	CCABAA543WEH0	X	Front Cabinet Ass'y	
1-1	*Not Available*	–	Front Cabinet	—
1-2	HBDGB3141CESA	X	SHARP Badge	AD
1-3	GCOVAA282WJKA	X	LED/RC Cover	AC
1-4	GCOVHA017WJKZ	X	Cover	AC
1-5	GDORFA027WJKB	X	Door	
1-6	HiNDPA278WJSA	X	Indication Plate	AC
1-7	MSPRPA012WJFW	X	Spring	AB
1-8	JBTN-A106WJKB	X	Power Button	
2	GCABBA153WJKA	X	REAR Cabinet	AZ

CABINET PARTS LOCATION



PACKING OF THE SET



★ **MARK** : Not replacement items.

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TQ1717-S
Mar. 2004 Printed in Japan

Design and Production Information		
Design	:	JAPAN
Production	:	SEMEX

MY. DS

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